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Iron.

Condensed from a phonographic report, by Mr. A. C. Stevens, of a lecture delivered at the Michigan College of Medicine, by Prof. J. J. Mulheron, M. D.

I REMARKED at our last meeting that the effects of iron were best studied in cases in which the metal was indicated for therapeutic purposes. Given to a healthy person—one in whom there is a normal condition of the blood—the effects of iron are scarcely, if at all, noticeable. Given, however, in a case in which there is depression and languor, associated with paleness of the lips and of the surface, and all the other symptoms which you will be told from another chair are characteristic of the condition known as anæmia, the effects of iron are prompt and marked. The symptoms, unless due to some permanent organic cause, quickly disappear, the pale lips giving way to those of red, the wan look and lustreless eye becoming tinged with the ruddy hue, and the brightness of expression, which even the unpracticed eye at once detects as the accompaniments of health. As physicians and as students of the beautiful adaptation of means to ends in the economy of nature, we at once ask why this change—change in some instances so prompt and so directly ensuing on the use of the agent? It is not enough for us merely to note facts. Confining ourselves to this we deprive ourselves not only of a great fund of pleasure (for what so pleasant as to be able to interpret nature?) but we also deprive ourselves of the aids to progress. The explanation of one fact is the most potent aid to the explanation of another, as one victory gained is another obstacle half overcome.

The normal proportion of blood globules to the mass is 120 : 1,000. This proportion is lessened with the degree of existing anæmia, or rather the anæmia is in direct ratio to the lessening of this proportion. An anæmic girl places herself under your treatment, and if you have acquired sufficient skill as microscopists (which it is expected you will), you detect the proportion of corpuscles to be say 50 : 1,000. You put your patient on iron, and in two weeks you find this proportion has increased to 75 : 1,000. In two weeks more to 90 : 1,000, and at the end of two months 120 : 1,000 has been reached. With this increase, and associated closely with it, the beautiful change in lips and cheeks and eyes is observed. The improvement of the blood and the symptoms is too intimately associated to permit of even the shadow of a suspicion that they are mere coincidences.

Iron is found naturally in the blood, and the substance in which it is found is that which constitutes the coloring matter of the red corpuscles. This is called hæmatosin. The absence of this hæmatosin means absence of iron, for without it iron cannot exist any more than albumen can exist without nitrogen. The result of the giving of iron is the restoration of this coloring principle—a principle which is closely associated with healthy blood, and apparently an essential constituent of it. Perhaps, and probably, iron supplies something else to the blood, for under its use the solid constituents of the circulating fluid are notably increased. In one case of chlorosis they were increased from 128.5 to 193.5 in a 1,000, the globuline from 30 to 90 and the hæmatosin from 1.43 to 4.59. It is probable, however, that the change in the other constituents is owing to the increased proportion of hæmatosin—the theory of Liebig being that the red corpuscles are the carriers of the oxygen from the lungs to the tissues and of the carbonic acid from the tissues to the lungs, and thus promoting nutrition.

Iron has thus a most immediate and obvious effect in restoring to the blood this wanting hæmatosin. As the exact chemical condition of the iron in the hæmatosin has not been discovered, so also the exact changes which chalybeate medicines undergo before they can supply this deficiency are not known. By some it is supposed that an albuminate of the peroxide of iron is formed in the blood, and that this is the basis of the red globules. In anæmia when not given in excess iron is not to be detected in the excreta—urine or fæces—thus showing that it acts as a food to the blood and favoring the opinion that it in this manner exerts its tonic influence. When given in excess of what can be appropriated, iron passes off with the secretions, and in the manner which we indicated when considering astringents as a class, acts as an astringent on the glands through which it passes. This astringency is peculiarly noticeable when the iron is combined with a mineral acid or chlorine. When given in combination with an organic acid, or in the negative metallic state, the astringency is not so marked, the tonic effect on the blood being the chief.

Iron itself is probably simply and solely a restorative agent. When it acts as an astringent it is probably due to its combination with mineral acids or with the halogen bodies. It is a tonic only in

cases in which it is indicated by deficiency of hæmatosin. In debility depending on any other cause than anæmia it is not only useless but harmful. All cases of debility are not due to anæmia, and while it is true that a proper condition of the nervous system cannot exist without a proper condition of the blood, it by no means follows that the converse is true. We may have normal blood with great nervous debility and excitability. In such cases iron is strongly contra-indicated. Shock, mental emotion, prolonged anxiety, or excessive pain may exhaust the nervous system, and in our present high pressure modes of social life, with the exigencies of business and the strife of competition, and the eagerness to amass fortunes, it is not an unusual thing for the physician to be consulted by patients of both sexes in whom there is great exhaustion and debility of nerve power, with little or no disproportion in the constituents of the blood. It is true this condition of the nervous system, if long continued, will result in derangement of the blood, but this derangement is secondary, and if before it is brought on iron be given, it will be given to the patient's decided injury, the appetite becoming blunted, digestion impaired, constipation ensuing, with fullness of the head and noises in the ears. In these cases nervous stimulants, quinia and strychnia, with rest from business and proper hygienic measures are what is wanted.

That iron is, furthermore, contra-indicated by vascular excitement, plethora, congestion and inflammation will, I think, be evident to you from the foregoing consideration. It should also be withheld in dyspepsia with biliary derangement until the liver has been restored to its function. The necessity of this you will understand if you will recall what I said in our previous lecture of the influence of bile in the preparation of iron for absorption.

Although iron is *the* remedy for anæmia it does not follow that all cases of anæmia will be benefited by the administration of iron. Unless the remedy is properly appropriated it will, of course, fail of its curative purpose. There must exist the proper appropriative power of the system. When this power is found to be deficient, measures must be directed to its strengthening. In the treatment of anæmia purgatives are valuable aids to iron. The manner of their being so has been variously accounted for. It has been suggested that they do so by removing a portion of the serum of the blood, thus causing the corpuscles to become shrivelled through exosmosis of their contents and placing them in a condition to more readily absorb the ferriferous chyle. They, doubtless, also assist the act by cleansing the blood of some of the products of waste and effete matter, as sulphuretted hydrogen, formed by the constant decomposition of the tissues which would have hindered the operation of the chalybeate by decomposing it. Again, purgatives usually act as indirect chologogues, and thus may assist the preparation of iron for absorption by supplying the bile which seems to enter so largely into this preparation. Whatever their mode of action the fact remains that they assist very materially in the treatment of anæmia. When during the course with the chalybeate the bowels become constipated, administer a brisk purge. It may be necessary to do this at least once a week and ordinarily twice.

It is necessary to call your attention to the discoloration of the fæces which results from the administration of certain of the preparations of iron. The forgetting or the ignorance of this fact has been the cause of some very ludicrous mistakes. A recent graduate once sought the counsel of an older practitioner for what he regarded as a case of mortification of the intestines. His patient had been taking iron in pretty free doses, and when the doctor was reminded that this was the cause of the black discharge mortification took possession of him. Blunders of this nature are always mortifying, and not only so, they are very unprofitable, especially when a rival happens to hear of them, and he is much more apt to hear of blunders than he is of successes, and much more apt, by the way, to advertise them.

How is it that iron blackens the stools? Two explanations of the fact are ventured. One is that a sulphuret of iron is formed in the intestines, from a union of the sulphur or sulphuretted hydrogen in the bowel with such portion of the iron as is not absorbed. The other is that the salts of iron form in the bowels the black precipitate with the tannic acid present in the food, after the manner we discussed under the head of vegetable astringents. While either of these explanations is quite satisfactory, it is probable that it sometimes requires both to account for the blackness. We have blackening of the tongue and teeth when we have no reason to believe that there is sufficient sulphur or combination of sulphur in the mouth. In this case the discoloration is unquestionably due to the presence of tannic acid in the food. Again, the discoloration of the fæces may occur on an exclusive diet of milk, in which case the tannic acid theory would not explain.

This discoloration of the fæces affords us a practical hint, in the administration of certain preparations of iron. It is not with all the preparations that it occurs. With the preparations insoluble in the stomach and with the potassio-tartrate this discoloration does not occur. But when with any preparation it does occur we may profitably diminish the dose, for inasmuch as it is only the unabsorbed portion that causes the blackness, it, of course, follows that when the blackness occurs more iron has been given than has been appropriated. That which is not appropriated can do no possible good and may even do harm. The large doses of iron which are sometimes given are useless. Only a definite amount can be prepared for absorption by the bile, pancreas and alkaline secretions of the duodenum. When good results are reported of thirty drop doses of the muriate tincture of iron, for instance, they are due rather to the acid than to the metal. Large doses are less beneficial in simple anæmia than small and frequently repeated doses, and I have known cases which had, under large doses not only failed to improve but to get actually worse, progress favorably under doses much smaller and more frequently repeated. The excess above what can be appropriated acting as a disturber of the stomach and bowels prevented them from absorbing a sufficient portion to supply the waste.

[The lecturer then discussed, with description in detail, the more eligible preparations of iron for

internal and external application. We select his remarks on the subject of dialysed iron.—ED.]

Dialysed iron is an oxychloride of iron. It is prepared by saturating a solution of ferric chloride with ferric hydrate, placing the mixture in a dialysator which is in turn suspended in water, where it is kept, the water being renewed until it ceases to have an acid reaction. The dialysator consists of a vessel which intercepts an animal membrane between the iron and the water; parchment paper has been profitably substituted for the animal membrane. The change which takes place between the water and the contents of the dialysator will be quite intelligible to those of you who have studied the laws of osmosis. After dialysation has been completed the iron in the vessel is diluted so that 100 grains will when evaporated weigh five grains. The standard strength is one part of the chloride to thirty of the oxide. A solution having a larger proportion than this of the oxide may without difficulty be prepared, but it is very apt to decompose.

The solution of dialysed iron in the market is not recognized by the U. S. P., but doubtless will be at the coming decennial revision, it having been introduced subsequent to the 1870 revision. It is a deep brown-red solution, neutral in reaction, almost destitute of styptic taste, and differs from the other salts of iron in that it does not precipitate tannin. In some respects it is preferable to the other preparations of iron. It is less apt to disturb delicate stomachs, and being freed from styptic properties does not constipate the bowels. It may be given in doses of from twenty to forty drops in a little water.

Dialysed iron has been successfully administered hypodermically, and in this it possesses a very important advantage over the other chalybeates. In anæmia there is frequently the pressing demand for iron, but the alimentary canal may be in a condition which prevents its preparation for absorption. You will recall what I said of the office of the bile, pancreatic juice and the alkaline secretions of the duodenum in preparing iron for assimilation. It sometimes happens that digestion is so seriously disturbed, partially, perhaps, through very lack of iron in the system, that the chalybeate is not appropriated. In such cases we have a valuable remedy in dialysed iron from its capability of being given subcutaneously. I recall now a very distressing case of chlorosis in a charming young lady who resisted a course of iron, most perseveringly continued internally, but who was rapidly restored to health, with its ruby lips and sparkling eyes, by the hypodermic injection of ten drops of dialysed iron twice a day. Before administering it in this manner satisfy yourselves that the preparation employed does not redden litmus. With this precaution you need not apprehend the irritation and abscesses which have been known to follow this method.

[Written for the Therapeutic Gazette.]

Chlorophyll and Cereus Grandiflorus.

By Richard E. Kunze, M. D., of New York.

SOME time ago my attention was drawn to an editorial opinion on some preparations of an eastern drug house, with reference in particular to the chlorophyll of cereus (cactus) grandiflorus. The article appeared in New Remedies, for May, 1879, to a part of which I briefly refer.

" * * * It is not unreasonable to presume that the lack of success which has followed the use of yerba santa in some cases may have been due to an inefficient preparation of the drug, and we are well aware that preparations of cactus are to be had in the market which, instead of being derived from the flowers and young shoots, are made from the entire plant, and contain large quantities of chlorophyll. In the case here referred to we find nothing objectionable, etc., etc."

Quite recently I noticed another article on the functions of chlorophyll in the American Naturalist, for March, 1880, being a review of Dr. Pringsheim's paper, recently read before the Berlin Academy of Sciences. It vividly brought the relation chlorophyll plays in the manufacture of green-plant tinctures to my mind, and induced me to write up what experience has taught us, and connect therewith the latest researches on the action of chlorophyll in plant life.

Now then, the young stems (shoots) of cereus contain much more of this green coloring matter than do the older segments, in which the brownish tint is due to a gradual decomposition of the chlorophyll grains. The calycine tube of the flower of night-blooming cereus makes up fully one-half of the floral envelope. Previous to inflorescence the entire flower-bud is of a greenish color, which is but slightly modified up to maturity. The bud, however, is covered with a brownish wool (villus) having its origin at the base of the green scales surrounding the tubular portion, and this gives the whole an undue brownish appearance.

Only a small portion of the chlorophyll of the flower-tube is decomposed, and much of the yellow tint of a tincture of the flowers is due to the yellow pollen of the latter and to the inner circle of yellow sepals. The outer rows of sepals are of a pale flesh-color, and orange tipped in one variety of the species grandiflorus, whereas in the other vanilla-scented also, the color is a flesh-brown, more of the latter, however, and without any orange on the tips of any of the sepals. The ground color of all sepals is pink, which is neutralized by green, yellow or brown, as the case may be in varieties. All this is observed during maceration. If you tincture the flowers alone, the color of the liquid at first is yellow, leaving exposed to view pink sepals, such as are not seen in the living flower. After a while the menstruum extracts this color, which in turn modifies the previous tint of the tincture.

If a tincture or fluid extract of night-blooming cereus be made according to the authorities that introduced this drug to the notice of the profession, *i. e.*, of flowers and stems, why then a large amount of chlorophyll must be present. Yet from the presence of other coloring matter in the flower, chlorophyll to a considerable extent is thereby neutralized. A tincture made from the stems alone at first is quite green, gradually changing to a yellowish tint of green, the effect of other substances of the plant, taken up by the alcohol. The supposition that a large percentage of chlorophyll should not be present in a tincture of cereus grandiflorus, imparts an erroneous impression, and

it should be corrected. And the amount of chlorophyll is much greater in the young shoots than in mature, well seasoned stems.

Chlorophyll (fœcula viridis—chromule, phytochlor, green vegetable wax of Schleiden) is the green coloring matter of plants. Dr. J. M. Schleiden held that it is composed of a wax-like substance and a peculiar coloring matter. Dr. Pringsheim says, that chlorophyll is dependent on the presence of oxygen, or is a phenomenon of combustion. He came to the conclusion that the chlorophyll acts as a protective substance to the protoplasm against the injurious influence of light, diminishing the amount of combustion, or, in other words, acting as a regulator of respiration. This substance (chlorophyll) acts universally as a moderator of respiration by its absorbing influence on light, and hence allows the opposite phenomena of respiration and elimination of carbon dioxide to go on in those cells which contain it. Certain substances become oxidized in the process of respiration.

In every cell, without exception, that contains chlorophyll, Pringsheim finds a substance that can be extracted by immersion in dilute hydrochloric acid for from twelve to twenty-four hours, to which he gives the name hypochlorin, or hypochromyl, and which he believes to be the primary product of the assimilation of the chlorophyll. It occurs in the form of minute viscid drops, or masses, of a semi-fluid consistency, which gradually change into long, red-brown, imperfectly crystalline needles. It is soluble in alcohol, ether, turpentine and benzol, but insoluble in water and in a solution of sodium chloride. It becomes gradually oxidized on exposure to an imperfectly crystalline resinous substance. It is probably an etherial oil, and an invariable accompaniment of the coloring substance of chlorophyll, and even more universally distributed than starch or oil. It has not yet been detected in those plants which do not contain true chlorophyll, such as the phycochromaceæ, diatomaceæ, fucaceæ and florideæ. Starch and oil appear to be reserve substances produced by the oxidation of the hypochlorin caused by light, it being the most readily oxidizable constituent of the cell, more so even than chlorophyll itself.

Now, since it is established, according to the investigations of Dr. Pringsheim, that chlorophyll is always found together with a resinous substance in the same cell, does any one consider it in the light of a useless substance at this advanced period? What are the medicinal properties of chlorophyll? No testimony bearing directly upon this question is at hand. But right here let me say that there are some facts connected with the superiority of green-plant tinctures over those of time-honored custom, which fully illustrate that the action of some drugs depends altogether on the freshness of the plant. Certain principles are nearly or entirely lost during the process of curing, as for instance, in arum triphyllum, anemone pulsatilla, polygonum punctatum, and others, depending on acrid properties. But the old-line routinist is slow to recognize new ideas. And with a stubbornness worthy of a better cause the same individual is ever ready to push his own favored dogmatic views beyond the recognized limit of decorous precedence. Partiality is a trait of human nature, and some are more highly gifted with it than others.

Our older writers, who were not blessed with the literature of modern discovery in applied science, had a vague idea that medicines prepared from fresh (green) plants were much superior to those made from old drug-hay. Fully knowing that they were preferable, they could not exactly tell us the reason why. Now to the average mind it is well known that beasts of burden are not long to discriminate between musty (green-moulded) hay and savory green fodder, notwithstanding all greenness acquired from age.

The color, flavor and richness of butter made from green clover-fed animals is more evident to the average farmer's boy than to the town-folk of superior age. Crafty manipulators of oleo-margarine would have us believe otherwise. And it is well understood that chemists, standing high in the estimation of their fellow-beings, for a consideration are ever ready to further the base ends of such unprincipled speculators and lend their names to all kinds of endorsements. But the average habitué of fashionable boarding houses is in relation to gustatory matters not overstocked with the judgment of an expert. His tastes having been contaminated, perhaps with strong tobacco, fiery liquors, strong ales, and may be old green cheese, the palate is no longer able to cope with the unscrupulous and penurious housekeeper of the period.

And so it is with physicians. Those residing in the country know full well the quality of indigenous medicines from sight and smell alone, whereas the average city practitioner would hardly recognize beans the bag being left open. What we want is a closer study of botany.

[Written for the Therapeutic Gazette.]

Piscidia Erythrina—Jamaica Dogwood.

By W. H. Rouse, M. D., of Detroit.

SUFFERING human beings are ever ready to bestow benedictions on those who relieve them of pain, and thereby render their return to health or to mother earth comparatively tranquil. Nor is relief so earnestly desired devoid of essential good to the patient, for if there be a return to health, the recovery, other things being equal, is usually more rapid from the quiet obtained from the anodyne, if to death the euthanasia not only soothes the dark passage, but also gives a quiet calm to the scene, peculiarly grateful to the sad and anxious friends.

The benefits patients obtain from relief of pain are familiar to all physicians, and may be familiarly illustrated from surgical cases. Ovariotomy and other severe operations would scarcely be attempted except by the excessively bold, without anæsthesia, and the results would probably be much more unfavorable than at present. While Listerism may have saved its thousands, anæsthesia has its tens of thousands.

'Tis true patients have died from chloroform and other anæsthetics, or have died while they were being administered. In this respect the history of chloroform is a little remarkable. Many British surgeons of extensive practice have used it constantly for years without much trouble—so little, indeed,

that they do not deem it essential to exclude patients suffering from pulmonary and cardiac diseases. Some of them claim that the so-called deaths from chloroform are really from fear and shock. Let this be as it may, many of the deaths from this anæsthetic have occurred in dental chairs, or in cases where it has been given for other minor operations in which full anæsthesia was not deemed requisite, or in other words, most of the deaths from chloroform have occurred during trifling operations, and while the patient was partially conscious, and therefore susceptible of pain but comparatively devoid of judgment. Chloroform has also been extensively used in obstetric practice and is deemed comparatively inoccuous, the parturient woman being now deemed comparatively exempt from danger from the proper use of this drug.

During the first stage of labor women often suffer excessively from slight and ineffective pains, and, becoming anxious and restless, exhaust much of their strength ere the second commences. Under these circumstances a full opiate or other quieting medicine will usually relieve the suffering, hasten delivery, and leave the patient in a much better condition than could be obtained in the natural way. The obstetrician need feel no compunctions of conscience on account of soothing the anguish of the woman in travail, because it was said, "In sorrow thou shalt bring forth children." There will be sorrow enough under any circumstances, even when the highest skill has been used.

The materia medica contains many valuable remedies for the relief of suffering. Opium, with its salts, stands at the head of the list, yet valuable as it is there are certain conditions of the system in which it would not be advisable to give this narcotic to ease pain. Under these circumstances belladonna, or some other of this class, might be substituted; but in lingering diseases, such as cancer, the changes from one to another of the narcotics may be tried and re-tried till the whole list has been exhausted, and the patient and friends still clamour for something else to soothe the pain. In these extreme cases the physician welcomes new and valuable additions to his resources.

Some months ago a patient, suffering from cancer, came under my care. She was a woman of nervous temperament, and suffered excessively. Opiates had been used long and faithfully in what might be regarded excessive doses, two teaspoonfuls of laudanum at bedtime being about the usual quantity requisite to give tolerable ease. The bowels were constipated, moving once in about eight to fifteen days, unless stimulated by cathartics. The obstruction of the bowels aggravated the pain. Various other narcotics were substituted for the opium, but the results were not satisfactory. Codeia, one of the salts of opium, proved to be one of the best; but still the patient and friends asked for something else to ease. Having pretty nearly exhausted my resources, I was induced to try the effects of Jamaica dogwood, a medicine which has been in use for a number of years in the West Indies, but comparatively new to the physicians in this locality. The results were so favorable that the medicine has since been used with considerable confidence.

Judging from the effects of Jamaica dogwood, (piscidia erythrina,) in this and other cases, considerable reliance may be placed in it as a narcotic of very prompt action. It seems to act especially on the nervous system, its effects being often noticeable within five minutes. Its action is not so lasting as that of opium, and hence the doses should be repeated at shorter intervals. No obvious change in the excretions has been detected, nor deleterious secondary results as with opium. Hence it can be used in congestion of the brain, and other nervous diseases, also in cases in which modification of the excretions is not advisable. The pulse seems but little affected; but in a few cases decreased action of the heart was observed, possibly due to the quiet obtained rather than from any cardiac sedative action of the drug used. It is quite probable paralysis might result from excessive doses.

Piscidia erythrina has been used in the form of tincture, and of the fluid extract. Like other medicines of this class, the dose varies very much, depending upon the condition of the patient. I have given from twenty to sixty minims of the fluid extract every three hours, and so far observed no ill effects from the teaspoonful doses. It is better, however, to give smaller doses and repeat as circumstances require, until the action of the medicine is better understood.

It may not be uninteresting to report a few cases in which this medicine has been used. My first case, as stated above, was one of cancer of the womb, a disease sufficiently severe to test the qualities of any drug of this class. Though it failed to give complete relief in doses deemed judicious, the results compared favorably with any other anodyne used, with less of disagreeable secondary effects.

In rheumatism and neuralgia it is of great service. A man æt. 35, was suffering from acute articular rheumatism, affecting principally the knee and hip joints. He was unable to turn in bed without great suffering. Fifteen minims of the fluid extract Jamaica dogwood, every two to eight hours, kept him quite comfortable till the disease yielded to the ordinary remedies.

Mr. A. B., a fleshy man, æt. 67, had a rather severe attack of neuralgia of the heart. Gave him half a teaspoonful of the fluid extract of piscidia erythrina, and in ten minutes most of the pain and disagreeable symptoms had subsided. Other remedies completed the cure. In this case the prompt action of this drug was particularly noticeable.

Mr. C. D., a laboring man, somewhat addicted to the use of liquors, was suffering severe pain in the bowels, apparently due to indiscretion in regard to food and drinks. One dose gave prompt relief, but it was found necessary to repeat the dose every two hours until the bowels could be relieved by a cathartic. This was a case in which preparations of opium would be eminently serviceable were it not for their peculiar action on the bowels, impeding rather than expediting the removal of irritating matters.

The prompt action of this remedy renders it valuable in relieving toothache, and in mitigating the suffering during the extraction of teeth in cases in which for any cause, anæsthetics are not administered.

Mrs. E. F. came into my office and requested me

to extract several teeth. She, though a large, and apparently healthy woman, was greatly excited, and refused to even have the teeth examined. She took half a teaspoonful of the fluid extract of dogwood, rubbed the gums with it, and then quietly submitted to the extraction of four teeth. She reported very little suffering.

I have since this, in a number of cases, caused patients to rub their gums with this medicine a few minutes before extracting a tooth. They all state that the pain is much less than without anything. I cannot tell how much of this is due to imagination, for it is well known that imagination may do much for a nervous person.

Whatever may be the future status of this new claimant for professional favor, the results obtained seem to warrant a recommendation for further careful observation. In it may be found therapeutic virtues not yet recorded.

[Written for The Therapeutic Gazette.]

Croup.

A Paper Read before the Wayne County Medical Society by W. H. Rouse, M. D., Detroit.

IN medicine, as in other sciences, terms are often used to express some prominent feature or symptom without any reference to the cause or pathological conditions which may induce such troubles. For instance, dyspnœa may be the result of organic disease of the heart, and dropsy from obstructed circulation, as in disease of the heart, liver, etc. In like manner croup is applied to dyspnœa attended with a peculiar wringing cough, well remembered when once heard, but the term is not expressive of the pathological conditions found in these cases.

The National Board of Health Bulletin has usually reported diphtheria and croup together in their mortuary tables, so that it is not easy to determine how many deaths have occurred from each. In the reports for the weeks ending January 24th and 31st, 1880, they are separate and as follows :

Croup,	87, 83=170	for the two weeks.
Diphtheria,	144, 159=303	" "
Total	231, 242=473	" "

The total deaths during the same two weeks were 2,858, 2,814, or 5,672 in an estimated population of 8,066,088, 8,166,392, or an average of 8,116,240, or about one-sixth of the entire population of the United States. If this be a fair estimate, the deaths from croup must be about 480 per week, and the disease must have been somewhat prevalent. It is believed quite a number of cases have occurred in this city.

Permit me to give a few cases from practice.

Case 1.—A boy æt. 2 years, and member of strumous family, had sore throat and some fever. Croupy symptoms gradually developed. A light-colored exudate was observed on each tonsil. Emetics gave slight relief, and the symptoms became very grave. The exudate disappeared from the tonsils without relief to the dyspnœa. Early in the morning of the third day of severe croupy condition the nurse gave by mistake a teaspoonful of aqua ammonia. This was ejected very promptly, and with it a hollow, cylindrical cast of tenacious matter, about two inches in length. The child's mouth was considerably burned by the ammonia, but convalescence commenced and the child got better, but several years later died of other disease.

Case 2.—A child, æt. 3 years, who had seemed fatigued and dumpish for several days, was taken into the country about seven miles. That night it was seized with croup, which was partly relieved by emetics and local applications to the throat and chest. In the morning when seen the child was up, but still had croupy symptoms, but not so severe as during the night. The tonsils were inflamed, and presented patches of dusky white exudate. The breathing was difficult and the countenance anxious. As evening came on the symptoms became worse, but not so bad as on the previous night. On the second day it was worse than on the first, though the patches of exudate on the tonsils were becoming smaller. The urine was scant and high-colored. On the third day symptoms still worse, urine very scant, and the tonsils free of exudate. The cough and dyspnœa vary much in severity but somewhat worse at night. On the fourth day urine was almost entirely suppressed, and the other symptoms were quite alarming. The child seemed sore, and gently lifting it seemed to cause much pain. On the fifth day the urine passed more freely, but other symptoms about the same as on previous day, except the prostration, which seemed still more marked. On the sixth day the urine was free and most of the other symptoms were more favorable. From this time there was gradual improvement and in time the child recovered.

The treatment in this case was a mercurial followed by a cathartic, and then quinine in large doses. A solution of the hyposulphite of soda was used as a wash and alkaline diuretics for the kidneys. When the croupy symptoms were urgent ipecac emetics were used the first few days with but very slight relief—so slight that there might be some doubt whether the apparent benefit was not accidental, due to the ordinary fluctuations of the disease. On the third day the quinine was given in aqueous solution with dilute nitromuriatic acid sufficient for solution. This acted very promptly as an emetic, causing no depression, and thus affording a most admirable substitute for other emetics. About this time the room was kept well supplied with vapor from slaking lime. The fumes from the lime seemed to give greater relief than any other single remedy used. Hot applications to the neck seemed of much service.

Dr. W. A. Byrd, of Quincy, Ills., reports in the St. Louis Clinical Record a case of tracheotomy performed to relieve the distressing dyspnœa of croup. A cast three inches in length was removed from the trachea through the opening. This was immersed in water two hours and remained unchanged. It was then placed in about a tablespoonful of lime water, in which it dissolved in about ten minutes, and then presented the appearance of brownish-gray soup. Free use of lime water, per atomizer, caused the child to expectorate matter similar in appearance to the cast dissolved in aq. calcis. If Dr. Byrd's observations in regard to the action of aq. calcis on the exudate in membranous croup be confirmed as reliable

in all cases, this disease will be shorn of some of its dangers.

Case 3.—While case No. 2 was under treatment, a very similar one to all appearance came under my care. The exudate on the tonsils was of a lighter color—nearly white—and relatively larger. The patient was a boy nearly 6 years of age. Similar treatment was ordered but not well followed. The next day another physician was called. He pronounced the disease membranous croup, and said the child would die, a prediction which was verified the following day.

Case 4.—A girl, æt. 2, was recovering from a slight attack of the measles. Croup came on and death resulted within fifteen hours. Exudate similar to that found in the preceding cases was observed.

Case 5.—A girl, æt. 8 years, who had suffered several days from malaise, alternate cold and hot sensations, soreness of the muscles, etc., was found with extensive patches of reddish-white exudate on the tonsils, fauces, and in the mouth. The breath was very offensive, and the glands of the neck enlarged. There was croupy cough, considerable dyspnœa, and whispered articulation. The urine was very scant and high-colored. The child was about the house but died within eighteen hours.

Here is a report of five cases; two recovered; three died. Each had severe croupy symptoms; exudate on the tonsils, and other observable evidences of similarity. It is presumed all were cases of membranous croup or of some other analogous disease.

This leads to the consideration of the nature or causation of croup, and its varieties.

It has been customary to consider the disease under two heads, viz., spasmodic and membranous—the former not often fatal, the latter always ending in death. It would seem possible that in some cases, at least, the results—recovery or death—determined the particular variety of ailment. There can be no doubt, however, that spasmodic croup may prove fatal, while membranous, in exceptional cases, may end in recovery. *Post mortem* examinations have been made in quite a number of cases of what was supposed *ante mortem* to be membranous croup, without traces of membrane being detected. These were probably spasmodic of more than ordinary severity. In all the fatal cases of croup I have seen, hardened exudate in the fauces or elsewhere was observed before death.

In all, or nearly all, cases of croup there is more or less inflammation of the larynx and contiguous parts, but this inflammation *per se* cannot be the cause of the disease, for it may exist in very varying degrees of severity without croup. Spasmodic croup is probably a neurosis, and like convulsions, clonic or tonic, and induced or excited in most cases by local irritation. A shock to the system, as the application of hot or cold water, will often give prompt relief, a result not likely in a case where the cause is inflammation. It is not improbable chloroform and similar remedies would be as beneficial in these cases as in convulsions.

Membranous, or true croup, may arise from any cause which induces a tenaceous or membranous exudate, such as influenza, diphtheria, etc. The constitutional derangement, whether primary or secondary, usually present in these cases, is the prime factor in the ailment; the distressing and fatal symptoms are but the results—the dyspnœa and cough being due to the mechanical obstruction and irritation.

It is generally admitted that diphtheria may induce true croup. The same has been claimed for influenza, hot water or steam, chemical irritants, as strong acids, ammonia, etc. But the true nature of the ailment is not definitely settled, that is, why inflammation at times induces or causes a tenacious membrane or exudate. There has been considerable discussion in regard to the identity of croup and diphtheria, many able advocates appearing on both sides—some apparently not remembering that croup is not a disease. As before stated, there are various ailments which may induce a tenacious or membranous exudate, and when the exudate is so situated as to obstruct respiration and cause the characteristic cough, the disease is termed croup—the prominent symptoms superceding, as it were, the disease itself, so far as nomenclature is concerned.

Very little need be said of the treatment, as each case must be managed on its own merits, but in most cases attempts to relieve the urgent symptoms, though good so far as they go, will be of little avail without at the same time relieving or removing the constitutional vice which has induced this condition. Even tracheotomy should be regarded as a means of gaining a little more time, for so long as the membrane-forming condition exists new patches will appear, though removed never so often.

[Written for the Therapeutic Gazette.]

Pepsine—Nitro-Glycerine—Tonga.

By our London Correspondent.

THE subject of pepsin and its preparations is now attracting considerable attention. Pepsin is largely employed in England, but the greater part of it is used by dyspeptics and is not prescribed by physicians. For some time past there has been a growing distrust on the part of medical men of all artificial aids to digestion, and this undoubtedly arises from the number of spurious preparations with which the market is inundated. Mr. Dowdeswell, in an able and thoughtful article in the March number of the Practitioner, gives the results of his examination of several well-known brands, and, sad to say, finds that some of the most extensively advertised are destitute of digestive powers. His observations have been amply confirmed by others. There can be no doubt that the dose in which pepsin is ordinarily given is far too small. A recent writer in the British Medical Journal considers that the dose of the Pharmacopœia pepsin should be nearer a drachm than five grains. Good pepsin is undoubtedly a powerful therapeutic agent, and if some one would bring out a pepsin four or five times as strong as our B. P. preparation, it would have a good sale. Preparations representing the pancreatic juice would also prove useful, for often enough it is the starchy rather than the nitrogenous portion of the food that remains undigested.

The second and third articles on "Recent Studies in Therapeutics," in the British Medical Journal, are devoted to a consideration of the properties and uses of nitro-glycerine, and its employment by Dr. Murrell as a remedy for angina pectoris. A very striking case is quoted by a medical man—a country practitioner—who was himself the patient. He had long suffered from angina pectoris, could obtain no relief, and had almost to relinquish practice. He took nitro-glycerine, and in six weeks the pains had left him and he was able to get about almost as well as ever.

Dr. Ringer and Dr. Murrell describe in the Lancet a new remedy for neuralgia, known as tonga. It has been used for several centuries by the aborigines of the Fiji Islands. It consists of parts of at least two plants, whose botanical relations are, however, unknown. The parts of the plants are broken up into a coarse powder, and then wrapped up in a cover of the inner bark of the cocoa-nut tree. The following are the directions regarding its use: "The bundle, without being unfastened, to be steeped in half a tumbler of cold water for twenty minutes, then squeeze the liquid back again into the tumbler, and take a claret-glass of the infusion three times a day, about half an hour before each meal." A kind of liquid extract is also made, and of this the dose is a drachm three times a day. It generally cures by the second or third day. In eight or ten days the pain may return, but a few more doses will make the cure permanent. Drs. Ringer and Murrell publish eight cases in which it was used, and in only one did it fail, and even there it seems probable that the bag, from having been used on several previous occasions, had become inert. A great advantage of tonga is that it is destitute of toxic properties. There has been a great demand for it, and, as the supply is at present limited, it fetches a very high price.

The great subject of talk in medical circles is the discovery, by Mr. Clay, of a remedy for cancer. All the papers, general as well as professional, are full of it. The new cure is nothing more than our old friend, Chian turpentine. Mr. Clay seems to have made his great discovery almost by accident. He went to trying different drugs in cancer till he found one that did good. He offers no physiological or pathological explanation of its action. He gives his facts, and that is all. His reputation is too high for there to be any doubt on the subject, and it is said that some of the London surgeons—for Mr. Clay dates from Birmingham—have data which fully confirm his statements. It is a great discovery, and encourages us to try new remedies in diseases which have hitherto been considered incurable. Clay's formula is:

℞ Chian turpentine, grs. vj.
Sublimed sulphur, grs. jv.

Mix. Make two pills, to be taken every four hours.

It has been suggested that the pills might not dissolve very readily in the stomach, and the turpentine may be made into a mixture according to the following method: Dissolve an ounce of Chian turpentine in two ounces of pure (anæsthetic) ether. Then take of this solution half an ounce, of solution of tragacanth four ounces, of syrup one ounce, of flowers of sulphur forty grains, the whole to be made up with water to sixteen ounces. Of this one ounce is to be taken three times a day. Patients are found to take it quite as readily as they do the pills. Since the appearance of Mr. Clay's paper Chian turpentine has gone up considerably in price; a short time ago there was hardly any demand for it, now it is obtained with the greatest difficulty, and we are told that we are not to expect any more for three months—a serious matter for sufferers from cancer. In a few days the Chian turpentine rose from three shillings a pound to sixteen shillings, and then the supply practically ceased. I hear that a large firm in London has some four or five pounds, but they naturally enough do not care to part with it, and keep it for their regular customers. A writer in the Lancet says that much of what is now sold as Chian turpentine is a wholly factitious article, manufactured from black resin, Canada balsam and the essential oils of fennel and juniper. Perhaps one of the most curious points about the new remedy is that it was mentioned by Paracelsus in his "Chirurgia Magna" as a cure for cancer.

Dr. Powers, in the third and last of his Gulstonian lectures, delivered at the Royal College of Physicians, of London, deals with the treatment of epilepsy. He considers that our chief trust should still be placed in the bromides, although it would be unwise to rely on them exclusively. In a few cases the sodic salt appeared to answer better than the ordinary bromide of potassium, though in the majority of cases it was distinctly less useful. Bromide of ammonium possesses slightly more power than bromide of potassium, but this is not greater than the larger quantity of bromine which it contains will account for. Combinations of bromide of potassium and digitalis, and of bromide of potassium and belladonna, are in many cases of distinctly greater value than of bromide of potassium alone. Gelseminum is often useful in epilepsy, given either alone or in combination with the bromides. Gelseminum is of such immense value in a variety of diseases that one wonders that it is not more extensively employed in this country. Picrotoxine is said by Dr. Powers to be of little value in epilepsy, but he has had but little experience with the drug, and his results are opposed to those of Dujardin, Beaumetz, Planat, and others. Picrotoxine is of such value in the night sweating of phthisis that it is to be hoped that it will obtain a place in the next edition of the British Pharmacopœia—when one appears. Among other drugs tried by Dr. Powers in epilepsy and found wanting were benzoate of soda and nitro-glycerine. Nitro-glycerine has recently been strongly recommended for migraine, asthma, neuralgia, sea-sickness, and many other complaints of "nervous" origin. If it does as much in these diseases as it does in angina pectoris, we may hope for great things from it.

A few nights ago a dinner was given at Willis' Rooms, in aid of the funds of the Royal Hospital for Diseases of the Chest—the oldest chest hospital in London, it having been founded by the Duke of Kent in the year 1814. The Duke of Connaught was in the chair, and the collection amounted to nearly £2,000. At a dinner given some weeks back in aid of a charitable purpose, a terrible mistake was made. Hunjadi János water was handed

round in place of Apollinaris. Several of the guests left the table, and even the chairman was compelled to retire.

The want of a good work on popular medicine has long been felt, and Messrs. Cassell, Pelter & Galpin have done well to issue their Family Physician in monthly numbers. The articles are capitally written, and the treatment is undoubtedly much in advance of that commonly given in our text-books of medicine. Much attention has evidently been paid to new remedies. Thus, under asthma, we find the following: "There is a remedy for asthma which has been quite recently introduced—in fact within the last year—and we cannot refrain from just mentioning it. It is the grindelia robusta. It is a California plant belonging to the natural order compositæ. It is said somewhat to resemble the sunflower, only smaller. The best preparation is the fluid extract of grindelia, and of this twenty or thirty drops are given in a wineglassful of water three or four times a day, an extra dose or two being taken at the onset of the paroxysm. We have given it in about a dozen cases, and have obtained some very good results. In the case of a man who had an asthmatic attack every night for years it afforded complete relief in less than a week. It will not succeed in every case, and we have had several failures, but it is well worth trying. We have never known it produce any unpleasant symptoms. It is a remedy as yet not at all generally known, but it may be obtained through any of the leading London or provincial chemists." The writer's favorable opinion is evidently the result of considerable personal experience. The Family Physician is pleasantly written and is eminently trustworthy—a rare combination.

Tonga, the new remedy for neuralgia, introduced by Drs. Ringer and Murrell, is being extensively tried and is said to act admirably. The great drawback to its general use is the price at which it is sold—four shillings for an ounce bottle of the fluid extract. It is said that three doses of a drachm each will effect a cure, but still the price is a long one. There is very little to be had, the supply being entirely in the hands of a city firm.

Dr. Sharpey, the eminent physiologist, is dead. For many years he was one of the secretaries of the Royal Society, and was a well known figure in London medical and scientific life. He was a splendid talker and a brilliant lecturer. Dr. Burdon-Sanderson, F. R. S., succeeded him in his chair of physiology.

[Written for the Therapeutic Gazette.]

Reports on New Remedies.

By F. E. Daniel, M. D., Jackson, Miss.

RHAMNUS Purshiana.—This statement may not be anything new, but still I am constrained to say that in my experience cascara sagrada does all that has been claimed for it. It has become a standard remedy with me, and indispensable. In duodenal indigestion I combine it with malt extract and nux vomica, and have found when this condition is associated, as it usually is, with constipation, flatulence, headache, cold hands and feet, vertigo, etc., that the combination never fails of bringing relief.

Damiana.—This drug, so highly spoken of as an aphrodisiac, I have used only as a nerve tonic, not having had an opportunity of testing it in the condition of the genitals for which it is specially recommended. I have found it to impart decided tone and vigor to the nervous system. In a case of general nervous exhaustion, due to excessive brain work in the case of an ambitious young clergyman, I combined it with phosphorus and nux vomica, with, I think, better results than would have followed the use of the other drugs separately.

In another case in which there was great nervous prostration in an old man with senile gangrene of four fingers, the ordinary ferruginous and bitter tonics had failed to restore strength, until damiana was added to the prescription.

The most marked results of this drug were, however, observed in the case of a young man, perfectly sound in other respects, but completely blind from tobacco amaurosis. The visual organs were, of course, sound to all appearances, but there was mydriasis as complete as I ever noticed to follow the giving of belladonna. I diagnosed paralysis of the muscular fibres of the iris, and prescribed damiana alone in fifteen-drop doses. The cure was prompt and complete, and as nothing else was given, if credit is given to anything, it must be to the drug.

Berberis Aquifolium.—I was called to treat a case of syphilitic herpes, of the eating variety (H. exedens), of five years' standing, which had resisted all treatment, even that of the Hot Springs. The disease was very extensive, extending from the ankles to the neck and all over the body. I applied the following treatment:

Locally,

℞. Acid chrysophanic, grs. xij.
Ungt. petrolei, ℥i.

M.

Internally,

℞. Ext. berberis aquifolii fluidi ʒ vj.
Liq. hydrarg. et arsenici iodidi ʒ ij.

M. Sig. 25 drops three times a day.

The reader will ascribe the credit to such part of this treatment as he may think deserves it, but the fact is that in four weeks the patient had entirely recovered from all outward manifestations of the disease. I, myself, give a large share of the credit to the berberis, largely because I have seen very satisfactory results to follow its use in disease of like constitutional origin. The case, certainly, is a remarkable one, but the report of the rapidity with which it yielded to the treatment I instituted, is none the less true. Doubtless it had undergone a complete mercurial course before I took it in charge, and it would be too much to suppose that a constitutional affection of this nature would give way to chrysophanic acid alone. The conclusion is thus forced on us, that to berberis aquifolium belongs the great part, if not the entire, credit.

Piscidia Erythrina—Jamaica Dogwood.—In the case of senile gangrene, mentioned above, in a case of scirrhus of the breast, and in one of toothache, I administered Jamaica dogwood to the complete relief of the pain. I recently gave a half-ounce vial to one of our most distinguished senators, who applied to me for an opiate to make him sleep. In consequence of great mental labor and anxiety

he had been unable to sleep for several nights. He had just delivered a master-piece of oratory in the Senate, for which he was being warmly applauded throughout the country. He reported to me next day that the medicine had "worked like a charm. Fell asleep in fifteen minutes; slept all night, and awoke refreshed and feeling not the slightest inconvenience."

My experience in the use of this remedy, though still rather limited, is sufficient to make it a favorite. I give it in half-drachm doses, and find its effects decidedly hypnotic and anodyne, without any of the objections which attach to opiates.

By J. P. Baird, M. D., Moscow, Tenn.

Kava Kava.—I have tested kava kava (piper methysticum) in two cases. The first was that of J. W., who consulted me for gonorrhœa, contracted twelve months previously, and which had run into a gleet. He had been treated during the whole of this term, but with negative results.

I ordered,

℞ Ext. kavæ kavæ fl Syr. simp. ǀǀǀ ʒ ij.

M. Sig. A teaspoonful three times a day; and

℞ Zinci sulph, grs. xij.
Morph. sulph., grs. jv.
Hydrastis canaden, grs. xvj.
Aquæ, ʒ jv

M. Sig. Inject syringeful every four hours. In a few days the discharge began to grow less, and the case went on to complete recovery.

J. H., seminal emissions, nightly, with much apparent debility of the genitals. His was also discharge of viscid mucoid matter after micturition. Ordered kava kava in same form and dose as in preceding case, and also small doses of bromide of potassium internally. After the first bottle he reported that the nocturnal emissions were less frequent, and that the discharge after micturition had ceased. The latter circumstance goes to show that the emissions were probably largely due to prostatorrhœa, and that kava kava acted locally to the allaying of the irritability of that portion of the urethra.

Guarana.—In a case of gonorrhœa of long standing, in which I had unsuccessfully employed copaiba and the other usual remedies. I determined to try the effects of a sample of guarana which I had secured. Give a half teaspoonful of the fluid extract every four hours. I am not aware that this article has been employed by any one else in this class of cases, but certainly the success which followed its use in this individual case is sufficient to encourage a further trial of it. Its *modus operandi* I do not understand, and I only note the fact that in this case its administration was followed by a prompt cure. Of course, a further trial will be necessary to fix the claim I hint at.

I have not had very pronounced success with grindelia robusta in bronchial affections. When I meet with a case of spasmodic asthma, will try it and report results.

By T. C. Bramon, M. D., Bramon's Store, Texas.

Damiana.—During our civil war I was induced to try an experiment with palma christi seeds. I had been told that they were slightly laxative, and desiring an action of this kind I ate twelve of the seeds. In the course of five or six hours afterwards I was attacked with severe emesis and catharsis accompanied with indescribable pains in the top of my head. I was left completely exhausted and in a critical condition of nervous depression. Following the more acute symptoms I was unable to hold my head erect, and suffered from deep dull pain in the occiput and complete loss of energy. This condition lasted for sixteen years in spite of treatment with the most approved agents and at the hands of our most distinguished medical authorities. Added to these brain symptoms I had during the last five or six years of this time been troubled with prostatic enlargement of the gland, and more or less impotency.

Having seen damiana recommended for the latter condition I secured a sample of the fluid extract of the drug and commenced taking it in teaspoonful doses twice a day. In a short time I found myself improving. The tired, depressed feeling, and pain at the back of the head and neck commenced to grow less and less, until finally they disappeared. The prostatic difficulty has also been materially relieved.

I am forced to regard damiana as having a stimulant tonic action over the cerebellum and medulla oblongata, and it must prove a reliable adjunct to the treatment of diseases having their seat in that region.

My experience in the use of cascara sagrada has not been satisfactory. I procured a pound of the fluid extract manufactured by Tilden & Co. and found it almost inert. Before condemning the drug, however, I will try what I have reason to suppose is a reliable preparation of it.

[Written for The Therapeutic Gazette.]

Ustilago Maidis—Cascara Sagrada.

By J. M. Blackerby, M. D., Milford, Ky.

MY attention having been called to some of the new preparations, I secured a number with a view to a trial of them in such cases as seemed to me to demand their use.

Ustilago.—I was called to see Mrs. M., primipara, January 5th, present year, at 8 A. M.; found her with irregular pains, and on digital examination found the os very slightly dilated and rigid, and seeming to suffer severely from the nature of the pains. Administered fluid extract lobelia one drachm, aqua four ounces, a teaspoonful every thirty minutes for three doses, and then every hour until I returned, having to visit a patient a short distance in the country. At 11 A. M. I found the os dilating and soft, pains less frequent and not so severe. Left my patient with directions to take two more portions of the medicine every hour. On my return I found at 3 P. M. the os well dilated, but the pains had almost entirely subsided. Administered fifteen drops fluid extract ustilago in a spoonful of water every twenty minutes. After the fourth dose was given the pains were renewed, and at natural and regular intervals, and the case progressed naturally to delivery of a fine healthy boy. The pains produced by the remedy were regularly intermittent and natural, very unlike any pains I have ever succeeded i

producing with ergot.

Case 2. Was called to see Mrs. S., in labor with sixth child. The os dilating naturally and of the size of a fifty cent piece. Mrs. S. told me she had been in the habit of flooding in from three to six hours after the delivery of each of her other children, and asked me to do something, if I could, to prevent a like occurrence this time. I determined to try ustilago in her case, consequently I administered ten drops fluid extract ustilago every fifteen minutes, and after five or six doses the pains became very strong and regularly intermittent, and in half an hour the child was born and placenta removed. After adjusting a suitable bandage—she had always worn one after each confinement—I administered two more doses of ustilago, twenty drops, thirty minutes apart, after which she had a good recovery, with no flooding. I saw this lady two weeks after delivery, and she said she had never felt so well after confinement as she then did.

In twenty years of obstetrical practice I have never had so favorable results from the use of ergot as I have derived from the use of ustilago in the past two years. I have used it in quite a number of cases presenting different features calling for the use of an oxytocic, and in them all I sought to test the virtues of ustilago, and with the happiest results. I have on my shelves a pound of fluid extract ergot, and I have no use for it now in parturitions. My tests of ustilago have imparted to my mind an exalted opinion in favor of it as an oxytocic and parturient remedy. I hope others may succeed as well with it.

Cascara Sagrada—Mr. P., merchant, called to see me in regard to the state of his health, saying he had consulted several physicians, all of whom treated him for dyspepsia. After talking with him for some time, and learning that his bowels were seriously constipated, and that he suffered greatly from sour eructations, I determined to test the virtues of cascara in his case. He stated that he seldom had an action without resorting to an active dose of medicine, or using a warm water enema, and frequently passed as much as seven days without an action from his bowels. I prescribed one drachm fluid extract cascara in water three times a day. Several days after he called again and said that after the second day his bowels had acted from two to three times a day, and asked if I designed the medicine to act so freely. I directed him to take twenty drops three times a day in the future, and if the medicine seemed too active to still further reduce the dose. Two weeks after he came to the office and reported himself cured, having an action every day from taking twenty drops at bedtime. After some advice to him I prescribed:

℞ Cascara fld. ext., ℥ j.
Nux vom., fld. ext., ʒ ij.
Aqua, ℥ v.

M. Sig.—A teaspoonful morning and night.

From this time on he has experienced no trouble with his bowels; his stools are regular and healthy, the sour eructations have ceased, and he says he feels himself a new man. Indeed, his general appearance proclaims him such. To use his expression, "this is a wonderful medicine." He says it is strange so small a dose should work such a change after taking so much medicine and such large doses.

I have tried the cascara in only a few cases, but with uniform success. The above is the most striking case of the number, hence I present it. I am greatly pleased with the medicine.

(Special report for the Therapeutic Gazette.)

Duboisia.

A Lecture Delivered at Jefferson Medical College by Roberts Bartholow, M. D.

DUBOISIA myoporoïdes belongs to the family of the solanaceæ. It is an alkaloid, and is not officinal, but corresponds closely to atropia in its physiological action. It is freely soluble in water. It is generally employed in the form of an extract, or in the shape of salts of the active principle.

The dose of the alkaloid is from the 1-120 to the 1-60 of a grain. The dose of the extract is from one-quarter of a grain to one grain.

The alkaloid possesses the medicinal properties and powers of the plant, and combines with acids to form salts.

Duboisia is incompatible with caustic alkalies, and should therefore never be combined with them in prescriptions. Like atropia it finds physiological antagonists in physostigmine and muscarine and to a limited extent in opium. It antagonizes pilocarpine in its most conspicuous properties.

In poisoning by this drug the proper treatment consists in the use of emetics and the stomach pump. Its systemic effects are then to be overcome by the hypodermic injection of physostigmine; muscarine, morphia, and pilocarpine may also be employed with caution.

The synergists of duboisia are belladonna, stramonium and hyoscyamus. Although the physiological action of atropia and duboisia are, as above stated, exceedingly alike, it is well to note the following points of difference, viz: (1) Duboisia is fully twice as soluble in water as atropia; (2) it is a stronger base; (3) its reaction to sulphuric acid and the bichromate of potassium is different from that of atropia; (4) it is less irritating to the conjunctiva, dilates the pupil more rapidly, and the patient recovers earlier from its effects.

As physiological effects it produces dryness of the mouth and tongue, with thirst and more or less difficulty in swallowing. The dryness of the larynx is very likely to affect the voice. The stomach and intestines are affected in the same way by duboisia as by atropia. So, too, with regard to the heart. The pulse is very soon accelerated and the arterial tension increased. The face becomes flushed, the pupils grow large and accommodation is sooner or later paralyzed. Othesymptoms of its action are frontal headache, tinnir tus aurium, giddiness, and restlessness during sleep.

The alkaloid diffuses rapidly into the blood and affects the nervous system, giving rise to uncertain gait and a general awkwardness in locomotion. Sometimes there is complete muscular paresis. In animals mental excitement and an approach to delirium have occasionally followed the use of the drug, and frogs poisoned by duboisia show tetanic symptoms after the lapse of several yays.

My experience, founded on physiological experiments, has been that the acceleration of pulse and rise in arterial tension do not persist, but fall

after the lapse of some hours, the excitement subsiding and giving place to a stupor which seems to favor sleep.

Some patients are affected very unpleasantly by the use of duboisia, vertigo and other unpleasant symptoms being complained of. These are, no doubt, purely subjective symptoms.

As regards the therapeutical application of duboisia, its use thus far has been principally as a mydriatic. Upon one occasion I have prescribed it in a case of puerperal mania with great excitement, and have had the maniacal excitement increased for a short period after its administration, and then give rise to a condition of mental calm. The improvement was rapid following the use of the drug.

In diseases of the eye, duboisia is in general preferable to atropia, owing to the greater rapidity of its action in affecting the dilatation of the pupil and in giving rise to paralysis of accommodation. The refraction of the eye can be determined much better by means of duboisia than atropia.

Duboisia is, I think, destined to take the place of atropia as a remedy for the night sweats of phthisis, and for the various nervous affections of the organs of respiration. It will also prove a valuable cardiac stimulant. It is superior to atropia as an hypnotic and anodyne.

[Written for the Therapeutic Gazette.]

Rhus Aromatica.

By J. W. Compton, M. D., Professor of Materia Medica and Therapeutics in the Medical College at Evansville.

DURING the limited time that I have been permitted to prescribe and note the therapeutic action of rhus aromaticia, I have been enabled to testify to its unmistakable and complete success in the cure of two cases out of three of incontinence or inability to retain the urine during the hours of sleep at night or for any considerable time in the day.

Case 1. Was a boy of 10 years who had wet his bed almost every night of his life. He was at time I first prescribed for him, six months ago, a bright school boy and his infirmity was exceedingly embarrassing to him. He commenced with ten drops three times per day and until he had taken one ounce of the fluid extract with decided improvement, being able to pass two or three nights in the week without wetting his bed. The second ounce was prescribed in fifteen drops three times per day and resulted in a complete cure of his infirmity which has not returned on him at this writing.

Case 2. This was in every respect similar to the first, both in regard to the character of the case and to the success of the case.

Case 3. A little girl 4 years of age, wet her bed every night and was often a source of much embarrassment to her parents, as she could not retain her urine a sufficient length of time to remain in church during the usual hours of service. The success of the two former cases gave me so much confidence in the almost specific action of the remedy that I prescribed it in ten drop doses three times per day with instructions to the mother to gradually increase the dose to fifteen drops. Finding that it was not successful in arresting the incontinence, of her own accord the mother increased the dose to a half-teaspoonful three times per day with no perceptible injury but without success. On hearing this report I requested the father of the little girl to bring to my office a few ounces of her urine, the first she passed after sleeping, for analysis. On testing it for albumen I discovered that it contained a considerable quantity of this substance, and I prescribed iodide of potassium resulting a complete cure of her incontinence.

I think it best to report the unsuccessful with the successful cases. The want of success in the treatment of the last named case was no doubt due to the presence of albumen in the urine, and this complication with the incontinence demanded an additional or a different remedy. This case also illustrates the necessity of frequent analysis of the urine in troubles arising from a morbid condition of the urine or the organs engaged in the production of this secretion.

[Special Report for the Therapeutic Gazette.]

Cuca.

A Lecture Delivered at Jefferson Medical College by Roberts Bartholow, M. D.

THE remedy bearing this name is composed of of the leaves of erythroxylon coca which is unofficinal. The best of its preparations is the fluid extract, of which the dose is one-half to two drachms for an adult.

Cocaine is the alkaloid of cuca. Its other constituents are an aromatic oil and a trace of tannic acid. The odor, taste and appearance of the infusion of cuca are very much those of tea. Cocaine combines with acids to form salts, and dissolves freely in ether, although but very slightly soluble in water and alcohol. The taste is bitter.

The incompatibles of cuca are the metallic salts. Its synergists are caffein, the cerebral stimulants, and the narcotics.

The inhabitants of Peru have long recognized the peculiar properties of cuca-leaves, which have a strong tea-like odor. Cocaine and the essential oil diffuse very readily in the blood. Cuca when taken internally depresses the pulse and diminishes the blood-pressure momentarily, but a considerable increase in the action of the heart and of blood-pressure supervenes. The mind grows calm and contented, and fatigue passes away. There is a short period of drowsiness to be succeeded by wakefulness and mental activity. Its use would seem also to greatly increase the respiratory power as well as remove the sense of fatigue.

Cocaine diminishes the excitability of the motor nerves, and impairs the power of voluntary coördination. A small dose increases the excitability of the sensor nerves, whereas a large quantity causes paralysis. The posterior columns of the cord are those chiefly affected. Large doses cause paralysis of the heart by an action on the intra-muscular ganglia of this organ. It first excites then paralyzes the respiratory centres.

Cocaine has been conclusively shown to lesson the elimination of urea. As in the case of tea and

coffee, it acts as an indirect nutrient, by checking waste, and hence a less amount of food is found necessary to maintain the animal economy. I have no doubt but that some of the elements of cuca are utilized as food and that the retardation of the tissue waste is not the only reason why it lessons fatigue and increases the respiratory powers.

As regards the therapeutical effects of this drug we may confidently say that it possesses undoubted value as a restorative. The French are the only clinicians who have as yet employed it to any extent. It will no doubt prove a useful remedy in phthisis, in wasting diseases and in the convalescence from acute disorders. It has been shown to be a successful medicine in migraine.

Abstracts and Translations.

[E. A. Anderson, M. D., in North Carolina Medical Journal, April, 1880.]

Vaccinium Crassifolium aut Repens.

In introducing this hitherto untried and unknown plant as a diuretic to the profession, I am in doubt if it has been described or used before. If so, I am ignorant of the fact, and have sought in vain among all of the works in materia medica and dispensatories at my command, for any botanical description of this vine or any therapeutical application of its properties. It is a creeper, growing in low, upland savannahs, in moist, damp places, and in the margin of ditches ; but not in the water or in dry, sandy lands. It bears on the extreme end of the vine, and on the under side a small cluster of small, bell-shaped pinkish or white flowers, resembling the lily of the valley. The fruit consists of from three to four berries which are at first green, then red, and finally when ripe of a black color like the huckleberry, and of a sweetish taste. The leaves are small, oval or oblong, alternate, thick, shining, very much resembling the uva ursi of the shops, in size, shape and taste, and when chewed of a very decided, pleasant, astringent taste. When boiled in an iron pot, the decoction becomes of a dark, inky color, showing the action of gallic acid on the iron, and hence, I always direct the infusion to be made either in a tin, porcelain or bell-metal vessel. I am told by a native of North Germany that this plant is identical with, or at least, closely resembles the uva ursi of commerce which is baled and shipped in large quantities to this country. Whether this is true or not I hope to show that it not only equals but far surpasses the uva ursi or buchu in its diuretic properties.

During the year 1868, in the fall of the year, the late Dr. Adam E. Wright was employed in attending the inmates of the county alms house of New Hanover County, North Carolina. Among the patients, most of whom were broken down by intemperance and innutrition, the result of poverty, vice and old age, were many obstinate cases of dropsy. These cases were treated by Dr. Wright in the usual manner with unvarying success, but some baffled all his efforts. Mr. Moore the superintendent of the alms house, a good meaning, but ignorant man, proposed to Dr. Wright to cure these cases himself with a vegetable remedy, the secret of which was known only to himself. Upon the doctor's consent, he administered the decoction in large doses, causing the patient to drink no other fluids and no water. The result was striking and remarkable. Profuse diuresis, and in some cases diaphoresis ensued the first or second day, the swelling in the limbs and abdomen went away, and the patient in some cases was radically cured, and in most relieved. Moore, like most ignorant men, constantly refused to impart the secret of his plant as long as he retained the position of superintendent of the alms house. A political change soon took place in the county, and he was removed and left for another county. Before leaving he showed Dr. Wright the vine and gave him a specimen, which the doctor unfortunately lost. Dr. Wright described and drew the plant, and I sought for it to no purpose for a long time. At last I accidentally found it, and upon showing it to Dr. Wright it was at once recognised. The specimen was then exhibited to the late Dr. James F. McRee, sr., who was the most eminent botanist at that time in Wilmington, N. C. Dr. McRee pronounced it to be the vaccinium crassifolium aut repens. I then commenced experimenting with it in regard to its diuretic properties and found them of the highest order.

Case 1.—W. Q., a fine healthy man, æt. 25 years, came to me with general anasarca and ascites ; feet and ankles swelled enormously, great distension of the abdomen, urine scanty and high colored ; dropsy simple and uncomplicated, produced by working in the water cutting ditches. Placed him upon a strong decoction of the vaccinium and nothing else, in order to test its diuretic powers thoroughly. In a week the swelling and tumefaction had all disappeared, urine copious and clear, and no return of the dropsy. This was a simple and uncomplicated case, dependent upon check of perspiration, and upon no organic disease. It is introduced here to show its diuretic properties in uncomplicated dropsy.

Case 2.—W. S., æt. 60, shipsmith, a strong robust man for his years, occasionally troubled with asthma and some suspicions of valvular disease of the heart, with much swelling of the feet and ankles and enlargement of the abdomen, with distinct fluctuation, urine scanty and high colored, sent for me ; placed him upon a strong infusion of the vaccinium and nothing else. Copious diuresis ensued, urine became clear, breathing easy and natural. The enlargement of abdomen subsided, and the tumefaction of the feet and ankles passed off rapidly. Up to this time, more than two years, has had no return of the disease and is in fair average health.

Case 3.—J. W., farmer, æt. 70, a man of very intemperate habits, enormous swelling of the abdomen, urine scanty and albuminous. Put him upon a free use of the decoction of the vaccinium with the result of promoting copious diuresis, under which the water was rapidly removed from the abdomen, ankles, feet and legs. As this was a case of dropsy dependent upon disease of the heart and liver, and a constitution broken down by excessive intemperance, no permanent relief was afforded. The fluid soon returned, was again removed by the vaccinium, and again returned. Vaccinium

failed this time to give relief. Tapping was resorted to, an enormous quantity of fluid removed; but the patient finally succumbed and death came kindly to his relief. This case is here cited, not to prove that this agent will cure complicated dropsy; but that it will in many cases afford striking relief even in dropsy, dependent upon and caused by extensive organic disease.

Case 4.—M. A., æt. 45, married, healthy, has five children, consulted me for jaundice extending over the entire body; urine scanty and loaded with bile. Placed her upon vaccinium in large doses, drinking no water and using no other fluid than the decoction. In a week the urine became clear and copious, the yellow hue disappeared from the skin and the patient made a rapid and perfect recovery. This was a case of jaundice depending upon torpor of the kidneys and bowels in a very healthy person, and is introduced simply to show the strong diuretic properties of this agent.

I might cite numerous other cases, but fear to make this article too long and take up too much valuable space in your Journal. I think these are sufficient to draw attention to this plant, and to extend its use more largely among the profession. It possesses marked astringent tonic and diuretic properties, and is very useful in chronic diarrhœa and dysentery. Its principal use, however, is in affections of the kidneys and urinary passages. In incontinence of urine and gonorrhœa combined with gelsemium it is the best agent I have ever employed. As a diuretic I consider it superior to buchu or uva ursi. It grows abundantly in the Southern States, and is a perennial plant—green the entire year, even in mid-winter.

I have received letters from all parts of the country from Maine to Louisiana, from Canada to California, amounting to some hundred or more, attesting the diuretic properties of the vaccinium.

Correspondence.

Yerba Reuma—Berberis Aquifolium—Viburnum Prunifolium.

I have found yerba reuma to exert a very decided alterative action on the mucous surfaces. In vaginal leucorrhœa, depending on atony of the walls and characterized by profuse secretion, the internal administration of the drug has been followed by marked improvement.

I regard viburnum prunifolium as an invaluable medicine in the treatment of painful menstruation due to whatever cause, but exerting its most beneficial influence in neuralgic dysmenorrhœa. In such cases the administration of the fluid extract in half drachm doses during the month, and in drachm doses three times a day for several days immediately preceding the molimen, will almost invariably ensure painless menstruation. In threatened abortion, due to an enfeebled condition of the uterus, black haw will also, from my experience in its use, be found of great value. I have been simply astonished at the success following the use of this drug in the class of cases referred to.

Berberis aquifolium exerts an unmistakable alterative influence in all skin diseases of a non-inflammatory type, and is of use, also, when the inflammation is of a chronic or sub-acute character. I have used it extensively with the result of liking it better the more I employ it. Wishing all success to the introducers of these drugs, I remain,

Yours, etc.,

R. J. LEMONT, M. D.

South West Harbor, Me., March 15, 1880.

Piscidia Erythrina.

During my incumbency of the position of Resident Physician at Mercy Hospital, Chicago, I received for trial a number of samples of new remedies. From the trial which I had opportunity to accord them, I would submit the following summary of results:

I regard cascara sagrada, berberis aquifolium, viburnum prunifolium, grindelia robusta, yerba santa and Jamaica dogwood as drugs whose addition to our materia medica will prove of great benefit. Certainly my experience with them tallies very closely with that of those who have written most approvingly of them.

Less has been written of jamaica dogwood, however, than of the others mentioned, and I would submit my experience of it more in detail: I employed it with success in several cases in which opium could not be tolerated. The necessity for an anodyne in these cases arose respectively from the pain following an operation, from idiopathic inflammation and from neuralgia. The relief in each case was prompt and decided and was followed by refreshing sleep. I should regard its anodyne properties, however, rather less powerful than those of opium although its hypnotic action is more decided. I believe it will take rank between chloral and opium for its anodyne and hypnotic properties, while it is devoid of objections peculiar to each of these drugs.

E. C. HELM, M. D.

Byron, Ill., March 3, 1880.

Senecio Aureus.

This herb, long held in high repute by the adherents of the "botanic school" of practice, and variously known to them as life root, ragwort, squaw weed, female regulator, etc., has for a great many years been one of my favorites. Forty years ago it was known by the unique name of "nucum" and under that title the growing herb was pointed out to me by a "noted Indian doctor" some years before it received a consideration in medical literature. Few indigenous drugs have held so high a place on the list of remedies employed by the Indian, botanic, or eclectic doctors, so called.

There remains no doubt, in my mind, that life root exerts a tonic and sedative influence on the uterus, for it is only on this theory of its action that I am able to account for the happy effects following its use. The term "female regulator" although savoring of quackery is nevertheless, very expressive of the action of the drug. In neuralgic dysmenorrhœa, uterine leucorrhœa, and in some conditions of amenorrhœa, its effects are certainly very satisfactory.

Until I was able to procure the reliable fluid extract manufactured by Messrs. Parke, Davis & Co., I was in the habit of ordering it in decoction

or infusion. I now employ the former preparation exclusively.

A. HARLOW, M. D.

38 High Street West, Detroit, Mich.

Diphtheria.

This dreaded disease has been very prevalent in my practice during the past season, and of a severe type. As the deaths have been ten per cent. of those treated, I feel constrained to submit the line of treatment followed.

As a precaution against infection I enjoin great care in the disinfection of the apartment, and insist on the destroying of the clothes worn by the patient.

Internally I administer:

℞ Potas. chloratis, grs. xxx.
Acidi carbolici, grs. xv.
Aq. dest., ℥ jv.

M. Sig.—A teaspoonful every two hours.

As a laxative, cascara cordial is a pleasant and efficient agent. To control and give tone to the heart I give digitalis in doses regulated by the condition of the patient. As a local application, a solution of potas. permanganat., applied by means of a camel's hair brush. Quinine in tonic doses is usually indicated, not to be given, however, when fever is present.

CASWELL T. POE, A. M., M. D.

Grand Island, Neb., March 28, 1880.

Liquor Ergotæ Purificatus.

I have just had a case which beautifully illustrated the activity of the new preparation of ergot known as liquor ergotæ purificatus. I was called to see a lady who had been flowing severely for five or six hours. The amount of blood which had been lost when I saw her was really alarming. The patient seemed completely exsanguinated, respiration sighing, pulse absent from the wrist, the second sound of the heart exceedingly weak and a cold, clammy prespiration covering the surface. The case was one which demanded very prompt interference. The patient was close on the dividing line between life and death, and a few more ounces of blood lost must have decided against her. I at once gave twenty drops of liquor ergotæ purificatus with stimulants and repeated the dose in twenty minutes. After the third dose the uterus contracted forcibly and the hæmorrhage ceased as if by a charm. With the assistance of my partner, Dr. Lamb, the patient was restored to health, the loss of blood under a tonic regimen being in a few weeks replaced; but the turning point of the case was when we gave the liquor ergotæ purificatus. Having used it in other, though less severe, cases than that reported, and with results entirely satisfactory, I am convinced that it contains the active hæmostatic properties of ergot in their highest purity. In giving it one knows just how much of the active principle of the drug he is prescribing.

FRED TREOR, M. D.

Aurora, Indiana, April 15, 1880.

Gonorrhœa Remedy—Wild Thorny Locust.

The plant referred to by Dr. W. E. Maull, in the March number of the Therapeutic Gazette, as a remedy for gonorrhœa, is very likely the wild aster, called by the country people clap weed, negro head, negro nabel, on account of its color, and shape of its disk. I do not know the botanical name of this plant; it resembles the single aster, has two varieties, one with orange yellow, one with pale purple flowers. The plant is perennial, has a branching, compact root, which sends up several erect, rough, leafless stems, terminating in three or four branches each bearing a single flower. Leaves at the base of the stems, three to four inches long, dark green, lance shaped and hairy. The flower consists of a large central convex, dark brown disk, with yellow (or purple) radial florets. Plant and root have no smell, but have an astringent, acrid taste. The plant grows abundantly all over the United States, on prairies, in uncultivated fields and old meadows. It flowers from June till late in the fall. It was formerly used by the country people and the western Indians for the cure of gonorrhœa and gleet, and I have seen several obstinate cases of these diseases cured by this remedy.

When at Fort Scott, in 1840, gonorrhœa was very common among the soldiers at the fort, as well as among the Indians who lounged in the vicinity of the place, and the clap weed was their main remedy. Mild cases were cured in the course of a week or two by drinking a cold decoction of the root of this plant ad libitum. No local treatment, excepting the cold water bath, was made use of. In older and severer cases a decoction of the root of the common silk weed (asclepias Syriaca) was used in addition. Clap weed and the wax myrtle (myrica cerifera) were the favorite remedies for gonorrhœa among the Mexican population in southwestern Texas.

Have any of the readers of this journal any experience in the therapeutical action of the bark of the root of the honey locust (wild thorny locust)? Two cases of gleet, in my neighborhood, of several years' duration, were cured after the treatment of skillful physicians had failed, by drinking the decoction of the bark of the root of the honey locust. The decoction is of a clear pale yellow color, its taste is very pungent and acrid, and seems to have narcotic properties. Half an ounce of the decoction of this root, which I took, caused, directly after taking, giddiness, dimness of sight, a prickly sensation of throat and tongue, which lasted several hours, and slight sickness of the stomach. The evacuation of the bowels on the following morning was very bilious and watery, as if a dose of mercury had been taken. There is no doubt that the root of this tree contains considerable therapeutical properties, and deserves a fair trial.

I would like to ask for information, through the columns of this journal, as to the best palliative treatment for dry inflammation of the urethra, caused by stricture of the urethra.

A. CRULL, M. D.

Dittmer's Store, Mo., April 5, 1880.

The Therapeutic Gazette

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On Bromide of Ethyl.

BROMIDE of ethyl, largely employed of late as an anæsthetic, was first prepared by Serullas by the reaction of phosphorus on alcohol and bromine in an atmosphere of carbonic acid. The product obtained in this way is usually easy to purify by simply agitating with a weak alkaline solution. When, however, the bromide is prepared by the reaction of bromhydric acid on ethylic oxide in status nascenti, the resulting preparation contains much impurity, which it is very difficult to remove. Though it is possible to remove the greater part of the impure foreign matter present by washing with an alkaline solution, quantities of mercaptanes and ethylene di-bromide, varying in amount according to the greater or less care exercised in the process, are always present, whose removal is a matter of imperative necessity, but at the same time difficult of accomplishment.

It is the ethylic mercaptane which imparts to the preparation the penetrating sulphurous and garlicky odor. This impurity seems to oppose very tenaciously the action of oxydizing agents, being first converted into ethylsulphan before its destruction.

The impurity just mentioned is, however, easier to remove than ethylene di-bromide, as it is not possible to mistake the odor inseparable from the organic sulphur compound, while ethylene di-bromide being colorless, quite aromatic, and also insoluble in water, presents greater difficulties in its detection and separation.

In preparing bromide of ethyl the greatest share of attention should be given to the removal of the just named ethylene di-bromide ($C_2 H_4 Br_2$) as this is a body easily decomposable with evolution of bromine, interfering seriously with the anæsthetic action of bromide of ethyl, and it may even produce fatal results by its presence.

The high specific gravity of this ethylene compound, 2.16, as well as its high boiling point, 129° C. (264° F.) enables us to confirm its presence if existing in any notable quantity, and no bromide of ethyl should be used having a specific gravity higher than 1.419 at 16° C., and a higher boiling point than 41° C. (105.8° F.) If the proportion of ethylene di-bromide is considerable it will even happen, on mixing some of the suspected sample with sulphuric acid, that a part thereof will sink below the surface of the acid.

It is of the greatest importance to caution against the employment of a mixture of bromide of ethyl and chloroform or against bromide of ethyl adulterated with the latter, for the reason that in such a mixture when inhaled, the bromide is readily decomposed and may produce dangerous results.

A mixture of one volume chloroform with two volumes bromide of ethyl has a specific gravity of 1.4448, and on heating in a retort with a little platinum black gives at once a distillate partly soluble in water and of a decided acid reaction, consisting chiefly of formic and bromhydric acids. What is here accomplished by the platinum black is also brought about in the economy by the analogous operation of the lungs, only on a larger scale; pure bromide of ethyl alone is not decomposed under like conditions. In order to possess the certainty that a pure bromide of ethyl, fit for administration as an anæsthetic, and harmless as such, is under examination, it should first of all answer exactly the simple tests mentioned above in regard to specific gravity and boiling point; too much value cannot be attached to this initial proceeding. The specific gravity should never be less than 1.418 and not over 1.419, a preparation of assured purity remaining within these limits. The boiling point should never be over 41° C.

A small quantity of the sample should evaporate rapidly from blotting paper, and should leave no odor reminding of sulphur or garlic.

Further reactions of a pure bromide of ethyl are the following:

1. Agitated with a fragment of metallic sodium it should remain clear.

2. Mixed with an equal volume of an alcoholic solution of potassa it should not become turbid for thirty to sixty minutes, even after boiling. An immediate turbidity ensuing can be caused by either chloroform or ethylene di-bromide.

3. Treated with ammoniacal nitrate of silver it should not reduce the silver nor even produce a brown or black discoloration of the solution, which would be the case were chloroform present.

4. Heated with Fehling's solution, no reduction of the copper must take place, as would happen with chloroform.

5. When distilled with concentrated sulphuric acid and the distillate afterwards shaken with water, no substances should be imparted to the latter capable of reducing the ammoniacal nitrate of silver, or Fehling's solution.

6. If heated with zinc-dust and water, no evolution of olefiant gas should take place, which would indicate the presence of ethylene di-bromide.

A preparation which will satisfactorily answer to all these tests can be used without hesitation, and in fact with much less danger than chloroform. When inhaled with admixture of sufficient air, it produces relief, for instance, in toothache, in a surprisingly short time, without the least indication of any unpleasant after effects. All the above mentioned reactions are sufficient to show that pure bromide of ethyl is a preparation of greater stability and more difficult of decomposition than chloroform.

When free from ethylene di-bromide it can be exposed for a long time to direct sunlight without any decomposition taking place.

During the distillation of bromide of ethyl in a closed room, the vapors do not become irritating or annoying to the operator, even when their presence is considerable in quantity, the only noticeable result being drowsiness. No unpleasant effects follow this condition, such as headache, dizziness, or irritation of throat or lungs.

Let us endeavor to contemplate the changes which could possibly take place in an anæsthetic once introduced into the system.

It certainly requires considerable intrepidity on the part of the chemist to accept the conclusion that changes resulting in the economy are inevitably the same as he can produce in the laboratory with his test tubes and reagents, but it requires even greater courage to maintain that reactions and decompositions take place in the body that are entirely unknown outside of it.

The supposition that only the decomposition products of anæsthetics are active in producing the result witnessed, and not the collective individuality of the agent itself, to say the least, rests on a very doubtful foundation, looking from the standpoint of experience. We will consider a few familiar anæsthetics from this point of view, with the endeavor to see how they could possibly affect the organism in their chemical capacity.

The first question would naturally be, at what point does the anæsthetic suffer decomposition? After inhalation it would naturally seem as if the lungs were the apparatus in which such processes could and would take place.

The next query, how could the lungs act as a factor in the supposed decomposition? would most naturally be answered by a reference to the large surface to which the vaporized anæsthetic would be exposed, the state of minute division in which it there exists, and the presence of moisture and air as agents active in affecting its composition. All of these conditions can be imitated artificially in the laboratory. If we take spongy platinum and water-vapor or steam, we should be able to accomplish with these all the decompositions due to the conditions just named as existing in the lungs of a living subject.

We will consider first the decomposition products of ether subjected to the action of these agents. If we pass ether vapor over spongy platinum heated to redness we obtain as products carbonic acid and water. If the temperature of the platinum be now reduced so as to approach that of a living body, not over 95° F., and partial access is allowed to the air, decompositions of the same kind could take place, only incomplete, and possibly when a part of the oxygen shall have been consumed we would have as one product carbonic oxide instead of carbonic acid.

If another element be now introduced, namely, water-vapor, and the mixture passed over platinum sponge at an ordinary temperature, we obtain as products formic acid, carbonic acid and carbonic oxide, and therefore accomplish a splitting up of the ethyl into formyl, which latter, as well as carbonic acid, has carbonic oxide for a radical.

Decomposition of an analogous nature would take place with chloride or bromide of ethyl, only we should obtain in place of formic and carbonic acids, chloroform and bromoform, having also for their radical carbonic oxide.

Pushing the inquiry further, the question next arises what would be the products of complete oxidation of these substances? Undoubtedly the result would be carbonic and chlorhydric or bromhydric acids, or with only partial oxidation and presence of moisture, formic acid in considerable quantity, besides the carbonic acid and carbonic oxide.

Reasoning from the foregoing premises we would be led to the conclusion that the final product of decomposition is in each case carbonic oxide or a combination thereof which could easily furnish it by another step in the process of separation. With chloride and bromide of ethyl there would first be produced in case of incomplete decomposition a second anæsthetic (chloroform or bromoform) but with complete oxidation, also chlorhydric and bromhydric acids.

It would now be necessary to ascertain whether it were possible that in the lungs, bromhydric and chlorhydric acids could be taken up by the blood, in order to arrive at a satisfactory answer to the main question.

That carbonic acid has a decided anæsthetic action is not to be disputed, and the views first referred to may, therefore, well be considered inasmuch as the blood during narcosis becomes richer in carbonic acid and of a darker color.

According to the researches of Vierordt, during narcosis the circulation is slackened to one-fifth of its normal rapidity, according to Lenz to six-sevenths, and is followed by a decreased amount of organic change in the body and a reduction of temperature, which are all to be regarded as evidences of decreased vitality, by which, in turn, a greater or less degree of unconsciousness is conditioned. Should the correctness of these views be demonstrable experimentally, there would be little difference in the choice of anæsthetics; though it would seem as if ether should have the preference over chloroform inasmuch as no compounds of an acid or irritating nature would be formed from the former. Should we find, however, that carbonic oxide was the only active agent in producing narcosis, it could certainly as well be applied directly. That it would never occur, however, to a physician to use carbonic oxide, we may accept as a positive fact. Acting further on the theory just considered, how can we account for the effect produced by nitrous oxide gas? The formation of carbonic oxide is here out of the question, and still it is a good anæsthetic agent, perhaps only in virtue of excluding by its volume the atmospheric air from the lungs. The supposition that products of its oxidation are instrumental in bringing about narcosis would at once be rejected as unsound. The views of physiologists are extremely varied on the subject of anæsthesia and the manner of its production, but the latest acceptation based on a series of experiments with chloroform, at least, is that this agent in condition of vapor is absorbed by the blood, and in its own individual character exerts a direct paralyzing action on certain nervous centres, only a very fugitive, physical or chemical change being possible as is demonstrated by the rapid recovery from even the most profound

narcosis and complete restoration of the subject to a normal condition.

Rectal Alimentation.

The question of alimentation by enemata has within the past year or two been receiving considerable attention. Several valuable papers on the subject recently published have aroused an interest in this method which had previously for a long time lain dormant. It is, in a measure, unaccountable why a means of nourishment so effective should be so largely neglected in a class of cases offering so many indications for its use. The stomach is a much abused organ, and it is strange that it should not be afforded in cases of its impairment, the rest and opportunity for recuperation which it is possible to afford it through the opposite extremity of the alimentary canal. Doubtless the dictum of certain physiologists that the rectum is not an absorbing surface, and that it is, therefore, impossible for nourishment to be imparted through it, has had some influence in the denying of a trial to nutritive enemata. When the process of digestion and the structure of the rectum are taken into consideration the denial of ability to that portion of the intestine to appropriate nutriment seems well founded. Certainly the rectum cannot prepare food for absorption, and it is further known that no portion of the large intestines can do so. The fact remains, however, that patients have been nourished and kept alive for weeks, and that, too, when suffering from exhaustive diseases, without having been given a morsel of nutriment except by the rectum. Intelligent practitioners are, however, not prone to accept such an explanation of a fact as is based on an an improbability, and although it is possible for certain portions of undigested food to be taken up by the rectum, in the same manner for instance that certain medicines and aliments can be taken into the blood through the integument, the quantity thus appropriated is not sufficient to sustain the patient for any great length of time, and the sustenance in the class of cases referred to have been attributed to other causes than the enemata. This is not the only instance in which an agent has been rejected because its working could not be made to conform to laws considere dimmutable.

In view of the objections urged, as above, to rectal alimentation, the theory of "Rectal Inhaustion" as enunciated in a paper by Dr. Henry F. Campbell, of Augusta, Ga., and published in the Transactions of the Gynæcological Society for 1879, is both interesting and instructive. Rectal inhaustion, Dr. Campbell explains, is due to a reversed peristaltic action of the bowel caused by the irritation of the foreign body. By this reversed action, to which the term "Retro-stalsis" has been applied, the enema is carried up out of the rectum and made to reach the portions of the intestines where all the conditions of normal intestinal digestion are complied with. Should this theory prove correct, nutrition by rectal injections will become intelligible. Prof. Austin Flint, recognizing both the practical good accruing from nutrient enemata, and the fact that the large intestine itself is insufficient to the absorption of a sufficient quantity of unprepared (undigested) material, has sought to reconcile the apparent discrepency on the principle of vicarious action on the part of glands found in that portion of the alimentary canal. This theory is scarcely satisfactory and was accepted simply because nothing better had been offered.

Dr. Campbell adduces arguments in support of his theory which are certainly very convincing. That the rectum is not a repository but a passage way for fæcal matter is now an accepted physiological fact. It is intolerant of fæces and expels them downward. When, however, their exit is prevented by a voluntary contraction of the sphincters, "retro-stalsis" sets in and they are returned to the colon. It is a familiar fact that the desire to defecate being resisted disappears and cannot be recalled at will. In the treatment of constriction of the rectum by bougies it is necessary to secure the instrument with tape to prevent its being drawn up into the bowel (inhausted). Only a portion of an enema returns, the bulk of it leaving the rectum and ascending into the colon. Cases are on record in which beef tea being given per rectum has been vomited, and the fact of stercoraceous vomiting in ileus and strangulated hernia is not diputed.

Dr. Carpenter has pointed out that there is no part of the alimentary canal which is not capable of a reversion of its usual peristaltic action. "Gagging" is a reversion of the faucial muscles concerned in swallowing. Bile frequently enters the stomach instead of proceeding downward, and chylous vomiting sometimes occurs.

Dr. Campbell has conducted a number of experiments on inferior animals with a view of determining the correctness of his theory of rectal inhaustion and with the result of demonstrating it to his entire satisfaction. With this theory verified, and we think it has been, the "Gordian knot" of rectal alimentation is cut. The importance of a correct understanding of the modus operandi of this plan of nourishing is great, and we anticipate a much more extensive, and certainly a more intelligent, adoption of it than its merits have heretofore won for it.

Lessons Furnished by an Analysis of the Bromide of Ethyl.

WHEN it was announced, on the authority of, not only reputable but distinguished, members of the profession, surgeons of eminence, that a safe, pleasant and efficient substitute for chloroform had been discovered, the news was the occasion of rejoicing. It could not be said that Drs. Turnbull and Levis were precipitate or hasty in their introduction of the agent, or that they drew on their imagination for any of the facts which constituted the basis of their recommendation of it. For a long time and in a large number of cases they had tested the new anæsthetic, and the results were uniformly such as to justify all they said of it and hoped for it. Two hundred cases of anæsthesia not only without untoward result, but with positive improvement as regards the symptoms and effects produced, over those of the other anæsthetics, will, we think, be conceded to be sufficient grounds for all that these gentlemen hoped for the bromide of ethyl. Full of confidence in the virtues they claimed for it, they furnished a sample to

an eminent cosmopolitan surgeon, Dr. J. Marion Sims, with the request that he give it a trial. The result of this trial is already familiar to the profession, as are also the symptoms attending the poisoning. Following the report of Dr. Sims' case comes one from the editor of the Chicago Medical Gazette and another from Prof. Donald Maclean, of the University of Michigan. The effect of these has been to create a suspicion which has put a stop to the further trials which the profession felt encouraged to make from the favorable reports of Drs. Turnbull and Levis.

It becomes us, now that an examination has been made, of the samples giving rise to the untoward results reported, to enquire whether the suspicion thus cast on bromide of ethyl is just. The evidence in our possession leads us to say very positively that it is not. We are in a position to affirm that preparations have been employed which were not bromide of ethyl, that is, contained impurities to which the untoward effects were due. Bromide of ethyl gives reactions differing in several very essential points from those of the impure preparations which have been placed on the market. In some of these preparations chloroform has been found. Now under no possible circumstances could chloroform be generated in the manufacture of bromide of ethyl, and its addition must have been deliberately made. The union of chlorine and bromine makes a very dangerous compound, and the addition of chloroform to the bromide of ethyl with a view, doubtless, to reducing the cost of the so-called bromide of ethyl, would be the work of some one ignorant of the dangers of such an union. Sophistication under any circumstances cannot be too roundly condemned, but when it is resorted to in preparations of this nature it becomes positively criminal.

The experiments with bromide of ethyl flatly contradict Dr. Squibbs' views of the poosible direct cause of death in Dr. Sims' case. It will be remembered that Dr. Squibbs gave it as his opinion that the bromide of ethyl is a very unstable compound, and that its breaking up in the system was the probable cause of the deleterious consequences in the case noted. The bromide of ethyl is, on the contrary, a very stable compound and much less easily broken up than chloroform itself.

Without entering into a further discussion of this matter at the present time, we would ask for a suspension of judgment. The bulk of Drs. Turnbull and Levis's experiments were, doubtless, made with a pure preparation, but it is too often the case that a manufacturer, having established a reputation for the purity of a certain article, uses this reputation for base ends, and lowers the quality of his goods.

Prevention of Diphtheria.

A CORRESPONDENT of the Druggists' Circular, in referring to an article on the prophyaxis of diphtheria, by the Rev. T. R. Buckham, of Flint, Michigan, in which chlorate of potash, muriate tincture of iron and quinine were the agents employed, says that this plan was first introduced by Dr. Ezra M. Hunt, about five years ago. This correspondent makes several egregious blunders, among which the classing of our friend Buckham with the clergy is not the least. The "Rev." T. R. Buckham is somewhat rich! Again, Dr. Hunt may have employed this means five years ago, but to say that no one ever employed it before him is very much of a mistake. Twenty years ago we ourselves, in imitation of the plan of the late Dr. Zina Pitcher, of this city, gave quinine, muriate tincture of iron and chlorate of potassa, both as a curative and a prophylactic. It was Dr. Pitcher's practice to administer these to the well members of a family in which one was taken down with diphtheria, and if Dr. Hunt employed them fifteen years later, the fact only goes to show that history repeats itself.

Book Reviews and Notices.

Conspectus of Organic Materia Medica and Pharmacal Botany. Comprising the vegetable and animal drugs; their physical character; geographical origin; classification; constituents; doses; adulteration, etc. By L. E. Sayre, Ph. G. 1 Vol. 8 vo. pp. 220, with folding tables. Price, in cloth $2.00. Detroit: Geo. S. Davis, Medical Publisher.

For practical use for all interested in this scientific branch branch of medicine, we have never met with a better work. It is evidently prepared for a particular purpose, therefore in every instance it goes straight to the point. It is addressed especially to students who desire more than a superficial knowledge of drugs. It is fully up to the needs of the times and is in every sense a clear and pleasing elucidation of this tedious and difficult subject.

The two main departments of the work—Botany and Materia Medica—are ingeniously and curiously treated under sections designated by appropriate titles in bold type. These sections number about thirty. They, taken together, furnish a lucid and instructive birds-eye view of these departments. The author, it should be said, does not attempt to cover the *whole* ground by an exhaustive treatise, but rather a condensed display of salient points. The present work is remarkable for its thoroughness and for the clearness with which the author sets these forth by the display of type as well as language. The value of the work, we think, lies chiefly in its admirably arranged contents, contrary to the works of the kind generally, when the subjects are arranged alphabetically. These are *mapped out for study*, as it were, and a classification adopted, based upon the physical characteristics of the drugs. In this way results a grouping together of the various parts of the plant officinal—roots, rhizomes, tubers, bulbs, barks, leaves, etc. In this respect the author has chosen to follow Prof. John M. Maisch, of the Philadelphia College of Pharmacy. We think in this he has made a very judicious selection. Mr. Sayre evidently believes in accuracy. The minute detail with which he identifies each, even the more common drugs, are noticeable, gathering up in his description the physical and structural characteristics which have been by loose observers, so much overlooked or passed by.

Accompanying the work is a chart and tables, which evidently are invaluable for ready reference. The chart occupies the first seventeen pages. Opposite the column of drugs (arranged under their natural orders) are following points concerning them: Officinal name; botanical name; common name; habitat; part used; constituents medicinal properties; dose; and officinal preparations, making in all ten columns. The book closes with two tables, one of the alkaloids, the other of the antidotes and incompatibles. The former is particularly new and interesting; a tabular view is presented of the solubility, chemical tests and reactions, not only of the officinal, but all of the more prominent alkaloids, and many other instructive points concerning them not mentioned heretofore. Students anticipating a college course or those who would become more thoroughly informed in this branch of study cannot do better than to add this little work to their list of text books. It is in fact one of the books they cannot afford to dispense with.

Homœopathy: What is It? A Statement and Review of its Doctrines and Practice. By A. B. Palmer, A. M., M. D., Professor of Pathology and Practice of Medicine in the College of Medicine and Surgery in the University of Michigan, etc. Detroit; Geo. S. Davis, Medical Publisher. 1880. Price, $1.25.

The author informs his readers that "the object of this work is to supply one of the defects in the treatment of the homœopathic system; to give an exposition and fair discussion of its doctrines; to show what these doctrines really are as taught by its founder and the leading writers of the school." Another "leading object of the present publication of this little work is to furnish conscientious and intelligent persons an opportunity of learning what the system of homœopathy, with which they are dealing, or which is appealing to them for support—to learn definitely something of the means they are using and of the system to which they are giving their sanction and influence, and upon which they are relying."

We know Dr. Palmer has given this subject a great deal of hard study and has spent much time on its elucidation. We thought, at one time, he was too much of a partisan in medicine to "do justice to the subject," but upon examining the book before us we opine that no unprejudiced mind on either side can charge him with unfairness in the presentation of the subject. While we might differ from the author in the propriety of the inquiry at this time, we take great pleasure in commending the book to the reading community, whether lay or professional, to decide for themselves the author's inquiry after having read his statement.

Headaches: Their Nature, Causes and Treatment. By William Henry Day, M. D., Member of the Royal College of Physicians, of London; Physician to the Samaritan Hospital for Women and Children. Third edition, with illustrations. Philadelphia: Lindsay & Blakiston, 1880. Price, $2.00. For sale in Detroit by E. B. Smith & Co. Compliments of the Publishers.

"The first requisite for success in life is to be a good animal."—HERBERT SPENCER.

This work of Dr. Day discusses the subject of headache in all its varieties. There is not a condition of which we are aware but has received attention. Headaches are divided into three great classes. 1st. Those depending on causes within the brain—*inter-cerebral headaches.* 2d. Those depending on causes external to the brain—*extra-cerebral.* 3d. Headaches of childhood and early life. The chapters on Sympathetic and Dyspeptic, or Bilious Headaches are exceedingly valuable especially as describing the causes and treatment of that which constitutes near two-thirds of all the headaches mankind suffers from. Since the little book of "Wright on Headaches;" Day's is the most recent exposition of the disease, and may now be considered as authority on the subject. To the work is appended 116 formulæ and a very full index. We cordially commend it to the profession.

Medical and Surgical History of the Rebellion.

Through the courtesy of General Joseph K. Barnes, Surgeon-General United States Army, we have received volumes one and two Medical History of the War of the Rebellion, and volumes one and two Surgical History of the War of the Rebellion. The Medical History has been prepared and compiled by Surgeon Joseph J. Woodward, U. S. A., and the Surgical part by Surgeon Geo. A. Otis, U. S. A.

We quote from the preface: "No work of this character of equal magnitude had ever been undertaken." This great work (not yet completed) demonstrates the will of the American people as exemplified by their Congress—no other nations, notwithstanding their great wars, have given to their people such a work as the above. When completed it will be a monument to a great government, to the enterprise of its chief medical officer, and the intelligence and ability of Drs. Woodward and Otis, its compilers. We opine it is the greatest medical work of the nineteenth century. We await with interest its completion.

Our Homes. By Henry Hartshorne, A. M., M. D., formerly Professor of Hygiene in the University of Pennsylvania, etc. Philadelphia: Presley Blakiston, 1012 Walnut St. Price, 50 cents. For sale in Detroit by E. B. Smith & Co.

This is No. 9 of Keen's series of American Health Primers, and is devoted to a subject every person is, or should be, interested in. Our Homes is discussed in eleven chapters. 1st. Introduction. 2d. Situation. 3d. Construction. 4th. Light. 5th. Warmth. 6th. Ventilation. 7th. Water Supply. 8th. Drainage. 9th. Disinfectants. 10th. Population. 11th. Workingmen's Homes. Dr. Hartshorne discusses the subject in an easy and practical manner, laying down principles easy to be understood by any one versed in the English language. It is a book and subject for the householder, and should be in every library—in fact, the whole series ought to be.

The Student's Manual of Venereal Diseases, Being the University Lectures delivered at Charity Hospital, B. I., during the Winter Session of 1879-80. By F. R. Sturgis, M. D., Clinical Lectures on Venereal Diseases in the Medical Department of the University of the City of New York, one of the Visiting Surgeons to Charity Hospital, B. I., Department of Venereal and Skin, etc., etc. New York: G. P. Putnam's Sons, 182 Fifth Ave. 1880. Price, $1.25. For sale in Detroit by E. B. Smith & Co. Compliments of the Publishers.

This is one of the most concise books on venereal diseases it has been our fortune to meet. We have examined it carefully, and think it *the best.* Without entering upon the history of the disease or discussing its duality, the author enters

upon his subject in such a way as to attract the attention of his readers. He presents syphilis and gonorrhœa in such a clear light that even a first course student can comprehend it. His treatment is sound and practicable, and if conscientiously carried out cannot fail of being successful. We cordially commend it, especially to students and those physicians who have not time to examine the more exhaustive works.

Index Medicus for 1880. *Special Announcement.*

This monthly classified record of the current medical literature of the world has entered upon its second year of publication. We take great pleasure in calling the attention of the readers of the THERAPEUTIC GAZETTE to this fact. Its first year closed with a pecuniary loss to its publisher, and as the work is acknowledged to be of great practical value to the progress of medical literature, we bespeak for it a greater consideration at the hands of the profession. The object of the Index Medicus is to record the titles of all new publications in medicine and surgery and the collateral branches, each number recording those of the preceding month, and also gives the titles of all valuable papers found in the journals. It is enough to say that Dr. J. H. Billing, U. S. A., has it in editorial charge, with Dr. Robert Fletcher as assistant.

Photographic Illustrations of Skin Diseases. By George Henry Fox, A. M., M. D., Clinical Professor of Dermatology Starling Medical College, Columbus, Ohio, etc., etc. Forty-eight colored plates taken from life. Parts 7, 8, 9 and 10. Complete in twelve parts, $2.00 per part. E. B. Treat, No. 805 Broadway, New York. From the publisher.

In preceding notices we have expressed our approval of this new system of exemplifying diseases of the skin. The parts now before us maintain their usual good character. Part 7 illustrates Lupus Vulgaris, Lupus Erythematous, Epithelioma Superficialis, Epithelioma Rodens, Epithelioma. Part 8, Trychophytosis Capitis, Trycophytosis Corporis, Lichen Planus, Lichen Ruber. Part 9, Kerion, Lepra Maculosa, Moluscum 2, Erythema Multiforme. Part 10, Pityriasis Capitis, Pityriasis Corporis, Scabies 2. Porrigo et Pediculosis. Prof. Fox has been extremely fortunate in obtaining such perfect originals from which to obtain his illustrations. His explanatory text is terse and descriptive, yet sufficient to make the subject perfectly understood. Parts 11 and 12 complete the series.

Pamphlets Received.

Lectures on Cataract, with a Tabulated Report of One Hundred Recent Cases. By G. E. Frothingham, M. D., Professor of Ophthalmology and Clinical Ophthalmology in the University of Michigan. Reprint from the Physician and Surgeon, Ann Arbor, 1880. Compliments of the author.

This is a pamphlet of forty-seven pages, and consists of a series of lectures given to the class in ophthalmology on the subject of cataract. We were interested in these lectures as they appeared in the Physician and Surgeon, and it seemed to us that they contained all there was and is known on the subject.

In the table of 100 cases, the date of operation, name and residence of the patient, age, which eye, anæsthetic or none given, progress of the case, when the patient left the hospital, the result at time of leaving, and remarks. These make a complete record and verification of each case. Dr. Frothingham's standing as an ophthalmologist gives to these lectures more than ordinary interest, and the class must have been more than ordinarily instructed on the subject.

Memoir of Isaac Hays, M. D. Formerly one of the Censors of the College of Physicians of Philadelphia, President of the Academy of the Natural Sciences, Surgeon to Willis's Hospital, etc. Read before the College, Feb. 4th, 1880, by Alfred Stillé, M. D., LL. D., Vice-President of the College. (Extracted from the transactions, 3d series, vol. v.) Philadelphia, 1880. Compliments of the author.

A History of the Origin and Growth of the Jefferson Quiz Association, Together with a condensed account of six years' experience in medical teaching. Valedictory address to the class of the Jefferson Quiz Association at the Philadelphia School of Anatomy and Surgery, March 10, 1880. By John V. Shoemaker, A. M., M, D., Member of the Academy of Medicine Published by the Association.

The Cinchonæ Cure for Intemperance. By Charles W. Earle, M. D., Professor of Diseases of Children, Woman's Medical College, and Physician to the Washingtonian Home, Chicago, Reprint from Chicago Medical Journal and Examiner, Feb , 1880. Compliments of the author.

The Therapeutic Application of the R. "Podophylli" or Podophyllin. An essay read before the McLane County Medical Society. By D. Overly Crist, M. D., Indianapolis, Ind. Reprint from Ohio Medical Recorder, Oct. 1879. Compliments of the author.

First Annual Announcement of the Central College of Physicians and Surgeons, Indianapolis, Ind., College Building, N. W. corner Indiana Ave. and Tennessee St. Spring Session, 1880. This college was a graded system or three 'years' course.

McGill University, Montreal. Forty-seventh Annual Announcement of the Faculty of Medicine, Session 1870-80. With Summer Session of 1880, and list of graduates since its first commencement. Compliments of the author.

Annual Announcement of the Medical College of the Pacific (late Medical Department of the University of the Pacific). Being the Medical Department of University (City) College, San Francisco, Cal., Session of 1880.

Therapeutic Progress.

PUMPKIN SEED PASTE CAPTURES ANOTHER TAPEWORM.—It was the first time in a practice of twenty-five years that I had been called upon to prescribe for a tapeworm, consequently had no favorite prescription at hand. The patient was a lady, who enjoined upon me the strictest secresy in regard to her affliction, as well as requesting me to obtain the medicine at the drug store, for she feared the druggist might suspect the nature of her trouble. This gave me an opportunity to consult my library and look over the literature of the last twenty years as it is spread out through the journals. I there found the chief remedies to be male fern, kusso, kamela, turpentine, panna, pumpkin seeds, bark of pomegranate root, sulph. ether, creosote and carbolic acid. Each had its advocates who had succeeded with it after failing with all the rest. Some succeeded only when they combined two or three together after failing with each separate, but nearly all agreed in their preparatory treatment, that is, to abstain from food for twenty-four hours, and give a brisk cathartic to remove as much as possible the slime and mucus which envelopes the worm.

I had read Dr. Pratt's description of his struggle with a tapeworm, which brought the pumpkin seed treatment very prominently before my mind, and I resolved to try it. So I procured about two onnces of seeds, had them deprived of their shucks and

beaten into a paste with a little fine sugar. I then directed my patient not to take any breakfast or dinner, but in the afternoon to eat all the pumpkin seed paste she could swallow; but, in order to make more sure, I directed, in addition to this, that she should take twenty drops of the oil of male fern in two ounces of milk at bedtime and a like dose in the morning, to be followed in two hours with a dose of castor oil and turpentine, but she called again in the evening to tell me that on account of some necessary business she had to do, she had concluded to wait another week before going through with the treatment prescribed; but she had already taken about one-third of the paste. So I advised her to take the oil and turpentine in the morning, as had been directed, thinking what paste she had already taken might do some good, but, instead of following my directions, she took a dose of sulph. magnesia, and soon after had the satisfaction of capturing the whole worm, head and all, over twenty-five feet in length. It is needless for me to add that my next patient with tapeworm will surely get a prescription for the pumpkin seed paste.—*J. B. White, M. D., in Detroit Lancet.*

An Advance in Therapeutics. — The editorial corps of the Chicago Medical Gazette, and especially Dr. Clevenger, have been carefully investigating the chemical and physical behaviour of the mercurials The conclusion arrived at seems to be, stated broadly, that all of these preparations not originally simply mixtures of metallic mercury with other substances are reduced completely in the organism, giving rise to millions of minute globules of mercury which are pushed and float about in the circulating fluids of the body. These statements are not put forward simply as the legitimate deductions from a theory, but as facts ascertained by actual examination of the blood of animals to which calomel or other mercurials had been given, by microscopes of high power. In the case of the simple mixtures of metallic mercury as blue mass, mercurial ointment, etc., the metal enters the circulation in obedience to physical laws, and in accordance therewith wanders about throughout the organism until it is finally expelled in the same simple condition in which it entered. The authors endeavor to explain its therapeutic action by its physical properties, but in this respect we think their explanation hardly satisfactory. Their philosophy on this point is in substance that the globules of mercury by their gravity and mobility push morbific matter through the capillaries, thus preventing its lodgement and securing its destruction by oxidation in the blood or its elimination by the excretory organs. —*Chicago Pharmacist and Chemist.*

How to Gargle the Throat.—Dr. Lowdenberg, whose contributions on "Adenoid Tumours of the Naso-Pharynx" to our columns last year attracted attention, recommends the following method of gargling the naso-pharyngeal cavity. The patient inclines the head horizontally backward, and performs movements which we may call "quasi-deglutition," not including this last portion of this physiological action, definite swallowing. The liquid is passed much higher behind the soft palate than the ordinary method of gargling will permit. Some persons succeed so well in this manœuvre that they are able to eject by the nose the liquid which has been received by the mouth. Moreover, these rapid muscular contractions completely detach the abnormal secretions, which can then be easily expelled, and the greatest possible relief is thus given to the patient. Another method is to fill the mouth with the tongue; this confines the gargle to the pharynx. The head should then be bowed in a forward direction until the top of the cranium is its lowest portion. In this position the gargle will not only wash the roof ot the pharynx—giving a sort of sitz-bath, as it were—but if the patient have caught the trick, will flow forward through the nose. — *London (Eng.) Med. Press and Circular.*

The Benzoate Treatment of Tuberculosis.—In a discussion on a paper by Professor Klebs, read before the Society of German Physicians at Prague, the method of treatment by the benzoates was opposed by Professor Halla. He based his remarks on observations and experiments made from October, 1879, up to date. Of twenty patients treated in his clinic by benzoate, both internally and by inhalation, ten have died; two were unwilling to undergo the treatment and preferred to leave the hospital, one was dismissed for insubordination, and of the rest two are in such a miserable state that they must soon breathe their last. These twenty cases were purposely selected as moderate ones, those in the extreme stage as well as very slight ones being discarded. The benzoates were administered in large doses both internally and by inhalation, and were well borne, though in some cases they produced much desire to cough, and sometimes hæmorrhage. According to the charts of pulse and temperature (which were exhibited) they had no anti-febrile effect, in many cases an increase of fever even being observed. In only one case has there been an increase of body weight amounting to four kilos., and it is right to mention that the patients were taking very rich and nourishing diet, to which doubtless any increase in weight may be attributed.

Professor Halla values the benzoate highly, but thinks they can exercise their antizymotic effect most where, as in diphtheria, they come in direct contact by application to the diseased part. He intends to make further experiments, and will not rashly lay aside a method of treatment which in the hands of other observers has given such good results. Dr. Derblick had treated some cases in the Garrison Hospital, and had gained more encouraging results. Internally, he had administered benzoate of magnesia in ten gramme doses and three to five grammes by inhalation, with the effect of diminishing fever and increasing strength. —*London (Eng.) Med. Press and Circular.*

Podophyllin.—All who have been accustomed to prescribe podophyllin in pills will agree as to the impossibility of preventing occasional disastrous effects. But this is the fault of the form of administration, not of the drug. From a very long and extensive experience I can confidently affirm that none of the accidents and inconveniences which so commonly attend the administration of podophyllin ever arise when the drug is prescribed according to my method. On the contrary, it is one of the

most satisfactory and reliable of our medicines. The formula given is:

℞. Podophylli, gr. ij.
Essentiæ zingiberis, ʒij.
Spiritus vini recti q. s. ad. ℥ij.
Fiant guttæ.

A teaspoonful to be taken in a wineglassful of water every night at bedtime, or every second, third, or fourth night as required.—*Dr. Horace Dobell, British Med. Journal.*

Dispensing Copaiva in Capsules.—Mr. Prall communicates the following from the dispensing department of E. H. Sargent & Co.; the result of his ingenuity may prove useful to other pharmacists: "Some little time ago I received a prescription calling for ten grains copaiva in fifty capsules. I found this quantity just filled a No. 3 capsule, but was at a loss as to the best method of sealing the capsules. After some trials I found that the liberal use of water would accomplish this, and that the following manipulations were rapid and effective: Separate the capsule and hold the two portions between the thumb and first two fingers of the left hand, having previously provided a small graduate with a little water, a camel hair pencil, and a small vial, say one ounce, holding the copaiva, with an ordinary medicine dropper of the pipette pattern. Commence by dipping the pencil in the water, swab out the cap of the capsule, wash this and fill the capsule proper with the copaiva from the pipette. Now take the cap from the left hand and inverting it, get rid of the superfluous water by a quick jerk, and place it in its proper position on the filled capsule. The work is now completed, and in less time than it takes to read this description. In fact I know of no other substance that can be gotten into capsules so quickly as this. This prescription has been twice repeated, and the patient, a railway engineer, stated that he carried the box in his pocket constantly and that none leaked in the least. This was a tolerably severe test, and I was somewhat surprised at the result, which I think justifies me in recommending it to the craft."—*Chicago Druggist.*

Ustilago Maidis in Ichthyosis.—Signor G. A., of Turin, æt. 20, of good family, was affected from early youth with ichthyosis, and treated ineffectually by arsenic and sulphur. I prescribed ustilago maidis in doses of two grammes daily (the treatment being suspended for a day or two in each week), and in four months the patient was entirely cured.—*Prof. Cesare Lombroso, in Revista Clinica de Bologna*, Oct., 1878.

New Remedies.

On Chaulmoogra Oil in Phthisis.—The oil when cold is solid, and it is necessary therefore to mix it, after warming, with some other diluent oil. I have used almond oil for this purpose, as it seemed to me desirable if possible to avoid complicating the effects of the chaulmoogra oil with those of cod-liver oil, with which it has been recommended that it should be mixed. The oil has a nauseous odor and taste, and when mixed with cod-liver oil forms a mixture to which I find most patients are very averse. I should also premise that the cases in which I have given it were those of hospital out-patients, and that is the reason why some of them passed rather abruptly from under observation; an untoward circumstance which one must always be prepared for in dealing with persons of that class.

Case 1.—This case was a very suitable one for trying the effect of a new remedy, as the disease was in an early stage and limited to a small portion of lung. F. J., a pale youth of 17 years of age, whose father and mother had died of phthisis, came to Brompton Hospital as an out-patient on the 2d October last, complaining that he had twice within the preceding ten days coughed up a small quantity of blood, about four ounces each time; besides the cough and slight emaciation he had nothing further to complain of. There was dullness over the right apex from the clavicle to the lower border of the second rib, the respiration was harsh at this spot in ordinary breathing, and on deep inspiration, after coughing, there was some crepitation. Pulse 90, temp. 98°.8. To take ten minims of equal parts of chaulmoogra and almond oil three times a day in milk—also a tablespoonful of the nitro-hydrochloric acid mixture three times a day (Brompton Hosp. Pharmacop.). After taking the oil for fourteen days, during which time he had not improved in any way, and the cough had become more troublesome, he left London for Hastings; the result being therefore wholly negative.

Case 2.—This also seemed a suitable case for testing this remedy, as the disease was recent and limited. J. R., a youth 20 years of age, of strumous aspect, had been complaining for two or three months of cough, with frothy expectoration, dyspnœa, emaciation, night-sweats, and loss of appetite. He had always had good health previously, and his parents and his brothers and sisters were all healthy. Pulse very quick, 140, temp. 99°. Tongue coated. Dullness over right apex to third rib, tubular respiration with crepitant râles over corresponding part of lung in front and behind. Ordered ten minims of a mixture of equal parts of chaulmoogra oil and almond oil three times a day, and a tablespoonful of nitro-hydrochloric acid mixture. Iodine to be applied over the affected area. At the end of the first week he said he was worse, the cough was more troublesome, so that he got no sleep; his appetite was very bad, and for the last three or four days he had suffered from pains in the abdomen, and diarrhœa—the bowels acting three or four times a day. To continue the oil, but to have also mist. sodæ bicarb., c. sp. chloroformi one ounce; with twenty minims of tinct. cardamomi comp., three times a day, and to have trochisci ipecac. c. opio occasionally for the cough. This patient after taking the medicine for a month without any improvement ceased to attend; but a report was sent to the hospital three weeks afterwards to say that he was dead.

Case 3 was a more advanced one. B. B., a dark complexioned, anæmic looking girl of 15 years of age, had been out of health for nearly a year; she complained of slight cough, dyspnœa on exertion, loss of flesh and night sweats; the catamenia had been arrested for twelve months. She came of a healthy family. Pulse 140, temp. 100°

Tongue clean. On the right side there was dullness over the whole of the upper lobe, with largish moist crepitant râles both in front and behind. Chaulmoogra oil was ordered as in the two preceding cases, with one ounce of the mist. quiniæ c. acid nitro-hydroch. (Brn. H. P.) three times a day, and iodine was applied locally. This patient complained of great difficulty in taking the oil on account of its rising and its unpleasant taste; she was however urged to continue it, and professed to have done so for more than two months, at the end of which time she was rather worse than better. Mr. Henderson, of Rickmansworth, under whose care she has subsequently been, writes to me: "She became so much worse that I had to keep her in bed the greater part of the severe weather. The oil seemed to produce so much sickness that I was compelled to alter the treatment."

Case 4.—Considerable improvement attended the use of the oil in this case. T. B., a clerk 17 years of age, with a good family history, had been ailing for six months with cough and expectoration night and morning, loss of flesh, and night sweats. Pulse and temp. normal, tongue coated. Right side resonance diminished all over the front of the chest, with feeble breath, sound crepitation on coughing, some depression of the chest wall over the apex of the lung. Ordered fifteen drops of a mixture of equal parts of chaulmoogra and almond oil three times a day; a tablespoonful of the mistura ferri c. sp. chloroformi (Brn. H. P.) three times a day, and an embrocation of turpentine and iodine to be rubbed in over the right lung.

At the end of the first fourteen days the patient reported that he felt stronger, that his cough was better, the night sweats were better, and the appetite was better. At the end of the second fortnight he said he felt still stronger, his appetite was improved, and the night sweats had disappeared. By the end of the eighth week he reported himself as being much stronger, there had been no return of the night sweats, he was gaining flesh, and his appetite was very good. On re-examination of the chest the resonance over the right side had much improved, no moist or crepitant râles could be heard anywhere, but the respiratory sounds over the upper lobe were rather harsh. He left for New Zealand a few days after.

It is impossible in this case to lay much stress on the efficacy of the chaulmoogra oil, as it may be argued that, after all, this may not have been a case of phthisis, but one of somewhat chronic congestion of the lung with pleuritic adhesions about the apex; hence the diffused loss of resonance, the faint crepitant râles on cough, and the retraction of the chest wall over the upper part of the lung; and the chief agents in producing the great amelioration that ensued may have been the tonic iron mixture and counter-irritation which were employed.

Case 5.—This was a very hopeless case, but I had been asked to give the oil a trial in advanced cases as well as in early ones, and so I ordered it for this patient. C. T., a girl 13 years of age, had been suffering for twelve months from cough, frothy expectoration, dyspnœa, loss of flesh, and occasional attacks of diarrhœa. Her grandfather, her mother, and an aunt had died of phthisis. She had a very rapid pulse, and a temperature of 103°.6. There was dulness all over the right side in front, fluid crepitant râles all over the lung, and cavernous sounds in the upper lobe: on the left side scattered crepitant râles were heard here and there. To take fifteen minims of the mixed oils (as above) three times a day; and to have an ounce of the misturæ sodæ bicarb. c. sp. chloroformi with one minim of tincture of opium three times a day. This patient did not attend again, and died in a few weeks.

Case 6.—This was an "average" case of phthisis as we meet with it among hospital out-patients. J. E., æt. 29, a tailor, had been ailing for five months, and suffering from cough, frothy expectoration, loss of appetite and strength, emaciation, night sweats, and occasional diarrhœa. Pulse 110, temperature 101°. Tongue denuded in patches. Right side, resonance diminished over the upper lobe, feeble breath sounds, crepitations on cough and whispering pectoriloquy. Left normal. To have twenty minims of the mixed oils three times a day, and a tablespoonful of the mixture bismuth c. gentium (Br. Ph.) an hour before meals. Ipecacuanha lozenge when the cough was very troublesome. At the end of a fortnight his appetite was better, but the cough was "very bad" and the night sweats no better. He complained much of the taste of the chaulmoogra oil, and asked if he might not have cod-liver oil instead. I then ordered him the chaulmoogra oil mixed with cod-liver oil. He took this for a month, and at the end of that time he reported himself as certainly "not so well," his cough was worse, he was very feverish, thirsty sweating much at night; temperature 104°. Physical signs the same as at first. The chaulmoogra oil was discontinued. He was ordered mistura calcis hypophosphitis three times a day, ol. morrhuæ two drachms twice a day. After eight or nine weeks of this treatment he stated he felt stronger, the cough was better, and the night sweats had disappeared. Temperature 101°.8. The physical signs had improved, the dullness had diminished, and there was less crepitation on coughing.

Case 7.—C. P., a porter, 29 years of age, had suffered from cough for twelve years. Latterly he had been much worse and complained of considerable dyspnœa, loss of flesh and night sweats. The chest was bulged anteriorly to a great extent, and there were other signs of emphysema, feeble breath sound generally and little or no inspiratory expansion of the chest walls. But in addition there was dulness over the upper lobe on the left side, and fine metallic crepitation. He was ordered twenty minims of the mixture of chaulmoogra and almond oil three times a day, an ounce of the mistura ferri c. sp. chloroformi three times a day, and the chest to be rubbed every night with the lin. terebinthinæ. This patient, who could not take cod-liver oil, took this mixture of oils without any difficulty. After the first fortnight he reported himself as better and stronger, the night sweats were better, but he was coughing much at night. To take an ipecacuanha lozenge when the cough is troublesome. At the end of a month he said he was still better, he felt stronger, the cough was better, and the night sweats were nearly gone. He did not attend again—but on

inquiry it was ascertained that he was unable to get to the hospital and died about six weeks after his last attendance.

Case 8.—T. T., a young man 23 years of age, had frequently suffered from winter coughs; for the last three months he had been coughing constantly, and had occasionally brought up small quantities of blood. He complained also of much dyspnœa, of vomiting in the morning, of emaciation and night sweats. He had lost both mother and father of phthisis. Pulse 110, temperature 100°. On the left side of the chest there was dulness over the whole of the upper lobe with crepitation, and on coughing loud, gurgling râles were heard at the apex. He was ordered fifteen minims of chaulmoogra oil in two teaspoonfuls of cod-liver oil twice a day; an ounce of mistura gentian cum ammonia (Br. P.) an hour before meals three times a day, and iodine locally to the chest. At the end of a month there was no improvement. At the end of the second month he appeared no better in any respect, he thought he was worse, he had a return of hæmoptysis, and he protested that he could not continue to take the oil as it made him sick. It was therefore discontinued.

Case 9.—W. C., a clerk, 20 years of age, had been suffering for three months from cough, with slight expectoration, dyspnœa, loss of flesh and weakness. Pulse 100, temperature 99°.4. Right side dullness over upper lobe, with tubular respiration, and fine crepitation back and front. On the left side, faint sub-crepitant râles in the superior vertebro-scapular region. He could not take cod-liver oil, so was ordered twenty minims of the mixed chaulmoogra and almond oil three times a day, etc. This patient did not attend again, but sent a report that he was "not so well."

Of the nine cases then in which I have prescribed this oil since last September—three are dead; one removed to Hastings after taking the oil for a fortnight without any improvement; one found it impossible to continue it on account of the gastric disturbance it produced; one appeared to get decidedly worse during the administration of the oil, became very feverish, his temperature going up to 104°; then on the discontinuance of the oil and the substitution of hypophosphite of lime and cod-liver oil he mended considerably; one after taking the oil for two months was no better, and was allowed to discontinue it, as he complained that it made him sick; one discontinued his attendance after the first fortnight and sent word that he was "not so well," and one improved considerably.

It is impossible to regard this as a favorable report of the remedial influence of chaulmoogra oil in phthisis. In only one case was there any real improvement, and although that case presented most of the features of phthisis, another explanation of the symptoms was possible, as I have shown, and the improvement may have been due to the strong iron tonic and the counter-irritation which was employed. Nor can it be fairly objected that I submitted the remedy to too severe a test in the cases I selected for its use; they were by no means worse than the average cases of phthisis as they first come under observation amongst hospital out-patients; and they were such cases as are constantly found to be greatly benefited by other remedies. At any rate, I fear it must be concluded that this drug gives no promise of help in well marked cases, where the disease has reached the stage of infiltration and softening of any considerable portion of either lung. It requires something more than courage to persevere in prescribing a medicine which patients protest they dislike and which one is not in a position to assure them is certainly likely to benefit them; I propose, however, to give it one or two more trials in the form of *perles*, and in as favorable and early cases as come within my observation.—*Dr. I. Burney Yeo, in Practitioner.*

Duboisia.—Its Peculiar and General Effect Compared with Atropia.—Duboisine has already been in use a length of time sufficient for its value as a mydriatic to be judged, both in its therapeutic influence on the eye and in its mechanical action on the ciliary muscle for correcting ametropia.

Having used it almost continuously at the eye department of the Jefferson Medical College Hospital, and in my private practice, since July, 1879, a record of some of its peculiarities and general effects may be interesting to consider.

Professor William F. Norris, M. D., in an article on duboisia as a mydriatic, with remarks on its physiological and toxic effects, published in the American Journal of the Medical Sciences, No. 154, April, 1879, has given an ample description of the drug and its effects on animals and man.

In reference to animals he says, "It produces intoxication, delirium, dilatation of the pupils, loss of co-ordinating power over the limbs, and relaxation of the sphincter (urination and defecation), with a marked rise of temperature, followed by a decided fall of it below the normal standard."

In two cases observed by me I have found nearly all those symptoms occurring in man which Professor Norris has stated as seen to occur in animals.

The symptom I desire to notice chiefly in this paper is that of relaxation of the sphincter of the bladder, allowing an involuntary act of urination, in addition to the other already observed influences of the drug on man.

During December, 1879, Dr. ——, æt. 36, requested me to correct his optical defect. A four-grain solution of sulphate of duboisia was used, three drops of it in each eye once, an interval of five days elapsing between the examination of each eye.

Normal mydriasis occurred. After each instillation dizziness took place, drowsiness and slight want of co-ordination of the muscular system followed, and, in addition, there was observed a peculiar influence on the bladder, taking place in the same way after the use of the drug in each eye at separate times. The patient stated that the first attempt at urination, a few hours after the use of the drug, was normal and entirely voluntary, and he supposed the act accomplished, when, in a few moments, a second and a third involuntary act took place, he not being prepared for it the first time, but thereafter was more cautious. This action lasted three days after the use of the drug in each

eye, and was thus observed twice in its influence on the bladder in this patient.

In another case, observed in March, 1880, — Dr. ——, æt. 25 years,—the same strength solution was used for refractive purposes in the right eye. The instillation was made at 2 p. m. Dizziness was felt at the end of fifteen minutes, and continued fifteen minutes longer while sitting still; on walking, want of full power of co-ordination was experienced, and the patient said he felt as if intoxicated. The necessary examination was then made, and at the end of an hour from its use the doctor went home, which was near at hand. He said he suffered while going in the same manner, and then on his arrival lay down and went to sleep. At 7 p. m. he was aroused, after some effort by his friends, to partake of supper, and thereafter suffered no inconvenience in the same way. Later in the evening he urinated normally, and considered the act finished, when, in a few moments, a second and involuntary act took place, much to his disgust and surprise. This occurred for three days, he being prepared for it thereafter.

There was no pain, irritability, or increase in the amount of urine voided or in the force of the expulsion, in either of these cases, nor was there any greater frequency in the voluntary act.

Three weeks later I used two drops of a four-grain solution of sulphate of atropia in the left eye of the last case mentioned, for refractive purposes and to compare the action of duboisia and atropia in the same patient. Only normal mydriasis occurred, and no other constitutional manifestation, not even dryness of the throat. Atropia was evidently to be preferred by him. These medical gentlemen compared notes, and informed me of their unpleasant experience, which I consider worthy of narration, showing how men and animals can be similarly affected by the same drug

Since my experience with these gentlemen I have sought for the same manifestation in all of my male patients under its influence, but have found no other as yet; nor do I know of any such action on the opposite sex. Men I have found to be most susceptible to the drug, children slightly so: more cases must be observed on this point. In a more general way, I have found cases of interest exhibiting the effect of the drug. To dilate the pupil in a lady sixty-nine years old to investigate a senile cataract, I used one drop of a two-grain solution of sulphate of duboisia; two hours later, while returning home, she had sudden loss of control of her limbs, and had to be carried home, her friends thinking she was paralyzed. She slept very profoundly; had slight delirium; the next day was well again; later the cataract was removed, no duboisia being used, on account of her susceptibility, but she bore the solution of atropia, two grains to the ounce, very well.

I used a four-grain solution of duboisia in a case of irido-choroiditis with vitreous opacities, specific, only once, to dilate the adherent pupil, intending to continue its use for therapeutic purposes. The woman was twenty-eight years old, and, I have since learned, three months advanced in pregnancy; but on her way home she was compelled to be taken into a house and lie down, as she was unable to walk. The effect soon passed off. A four grain solution of atropia she has endured with only a slight dryness of the throat, and a good result has ensued.

The condition of the atmosphere and temperature of the weather have an influence on its use. The unpleasant effects of the drug have been more prominent during the mild, disagreeable, damp weather of the past winter; on cold, clear days it is better accepted.

I have resorted to atropia latterly on warm, disagreeable days, with no bad effects.

There exists also a certain variableness in the drug, one solution acting more unpleasantly than the others, and all made from the same bulk; and yet I have had solutions from various sources also.

The cases narrated exhibit the peculiar and general effects of duboisine as I have observed them during my use of it, and which I desire to add to those already made known by other observers.

The only value to be derived from its use is in gaining time in the study of refraction, and that is a decided one where time is a factor. Therapeutically, atropia is to be preferred; and where time is no essential consideration, in the correction of ametropia I would still use atropia. No permanent ills have followed the use of duboisine thus far, and its efficiency is not to be denied.

The action of the drug on the bladder in the cases quoted was no doubt due to partial paralysis of the constrictor urinæ; and if the action of the drug could be gauged for the genito-urinary system, it might be of use in some cases affecting that portion of the body.—*Wm. S. Little, A. M., M.D., in Phila. Med. Times.*

Paraguay Tea (Ilex Paraguayensis).—Perhaps I could not do better for the many readers of the Summary than to present them with the results of my experience in the use of Paraguay tea, which has now extended over a period of seventeen months.

The first case in which I prescribed it was that of Miss M., a tall, lean, sallow-complexioned, black-haired, dark-eyed girl, of 17. To use her mother's expression, "She never was healthy." She first menstruated at the age of fifteen years, the catamenia making their first appearance during a prolonged case of remittent fever. Since then, menstruation has been scanty, painful and irregular. She suffered continually from torpid liver, costive bowels, irregular appetite, feeble digestion, nervous prostration and persistent leucorrhœa, with very offensive discharges. Besides, she was subject to annual attacks of remittent fever, the disease recurring in the month of August three years consecutively. In September, 1878, had a severe attack of double pneumonia. As I had been her physician for more two years, I was called to attend her again. The case was a difficult one, but at the end of about ten days after the invasion she began to recover. Convalescence was exceedingly tardy. The greatest obstacle was her inability to sleep. This seemed to be the result of hyperæsthesia, for her impressibility was so acutely sensitive that the slightest noise, even a whisper, would frequently produce distressing nervous agitation, and she would tremble from head to foot as one terribly frightened. When she attempted to sleep this condition would involun-

tarily arise, and drive the "sweet restorer" entirely away for hours. Yet she constantly complained of a desire to sleep.

I tried various anodynes—every one, in fact, which I thought could be administered with safety to the patient. All seemed alike unavailing. This state of things had existed four or five days, when I received a package of Paraguay tea from Dr. Charles W. Zaremba, of Chicago, who is an importer of South American drugs. The parcel was accompanied by a letter from Dr. Z., relative to the nature and use of the new drug. It occurred to me that the soothing properties of the "tea" would most likely procure sleep for my much-exhausted patient. I repaired to her at once, and delivered it to her mother, directing a strong infusion to be used with sugar and milk as a diet-drink. It was then about "tea time," and I remained to watch the results. She drank about half a pint with her other food, and soon appeared a good deal refreshed. In about an hour she was discovered to be soundly sleeping. She continued to use it in the same way until she fully recovered. In a very few days all her hyperæsthetic symptoms entirely disappeared. She has since become entirely healthful.

After seeing the good results, which I ascribed to the Paraguay tea in the above case, I procured a few pounds of the leaves, and began to test its value on a tolerably large scale, prescribing it as a diet drink in nearly all cases of fever, pleurisy, pneumonia, etc., and I think with the best results. Coffee and the Asiatic teas, as a general rule, are very improper as diet drinks, I conceive, in acute disease; though the latter is extensively prescribed and used in nearly every section of this country, as well as in Europe. Very true, its use has greatly declined within the last twenty-five years, or since milk, for this purpose, has become popular; and just here, I wish to digress for a moment to offer some reflections upon the use of milk.

I find a very large number of persons with whom milk does not agree. This is the case with many in health, and more notably so when under the influence of disease. Then, milk differs so much in its qualities. Even in the country, remote from cities, where intentional adulteration is unknown, milk from the same cow will greatly differ in quality at different seasons of the year, and under the influences of different kinds of food. These cows are liable to various forms of disease, all affecting, more or less, their lacteal secretions, while frequently the indisposition is so slight as to escape observation. Taking this view of the matter, I conceive that milk should be prescribed for the sick with the greatest caution.

If I am correct in this, and the observations of the profession should bear out my experience in the case of the Paraguay tea, its general introduction will be of great service to the afflicted.

For more than a year, Paraguay teas have been in constant use at my table instead of "that compound devilment" known as "China tea." Through all the winter months it is used twice every day, and very often three times. It promotes appetite, augments digestion, and is followed, at night, by sound refreshing sleep. There are six of us, and it agrees equally well with all.

In my own person, I have carefully studied its action. I am quite dyspeptic. Coffee, at night, inclines to produce wakefulness. Two cups of the Asiatic tea will produce in me a splitting headache, and keep me from sleeping the whole night. It also produces gastrodynia, and sour, often greasy, eructations.

Two cups of the Paraguay tea taken at night produces a feeling of moderate exhilaration, to be followed in due time by calm, sound, refreshing sleep. Under its use. my appetite and digestion both improve. I notice a slight increase in the quantity of urine excreted under its use.

I ascribe its tendency to procure sleep to its soothing influence, and not to any narcotic principle.

I have never attempted to analyze the drug, but I feel sure that future research will demonstrate the fact that those who ascribe its medicinal properties to "caffeine" or theine, are laboring under a great mistake.—*W. H. Bentley, M. D., LL. D., in Med. Summary.*

Duboisia.—The New Mydriatic—Atropine is Dying, Atropine is Dead!—M. Galezowski presented to the Society of Biology at the session of March 23, a new mydriatic preparation. This plant, for it is derived from a plant, comes to us from Australia, and belongs to the family of the scrophulariaciæ, according to M. Olivier, of London, who has, studied it. It is called duboisia myoporoida.

According to the English ophthalmologist, Tweedy, a few drops of the solution of duboisia produces dilatation of the pupil that lasts from six to ten days. From the investigations that he has made upon this subject, M. Galezowski has demonstrated that the paralysis of the sphincter of the iris and the muscle of accommodation last for more than eight days in the healthy eye, but in the diseased eye the mydriatic effect is less persistent. He has employed this agent on more than thirty patients and it may to-day be said that the action of 1:20 solution of duboisia is quite as powerful as the 1:10 solution of atropia. If we shall be able to prepare its alkaloid, we shall have without doubt an agent more powerful than any of those we have known of up to the present time. This is not all! The duboisia plant presents yet other advantages over atropia. An aqueous solution 1:20 instilled into the eye does not irritate the conjunctiva, while atropia provokes such an irritation that we are obliged to absolutely abandon its employment in certain individuals. M. Galezowski tells us that he has seen to supervene inflammations of the conjunctiva, ectropium, hallucinations, delirium and even convulsions in infants, following the instillation of a collyrium of atropia. The collyrium of duboisia does not cause these accidents, and where the atropia has had to be abandoned on account of irritating effects, the new mydriatic may be employed with the most satisfactory results.

Our confrére reports also several observations that have been collected by one of his assistants, M. Adon Guéneau de Mussy; they show, in the most conclusive manner, the efficacy of the extract of duboisia in the treatment of certain ocular troubles. In a girl suffering from severe keratitis trachomatosa, neither atropia nor daturine could be employed during more than a year without aggra-

vating the difficulty; with the duboisia the inflammatory condition was easily relieved, so as to allow the cauterizations of the lid to be continued.

In a man affected with irido-choroiditis in whom iridectomy failed to prevent repeated relapses of the inflammation, and when atropine only aggravated the difficulty, a colyrium of duboisia has arrested all inflammatory attacks for more than three weeks.

Finally, M. Galezowski said it was desirable to learn if the action of this collyrium extended to the internal ocular membranes. It is known that the action of atropine does not react beyond the anterior hemisphere of the eye; the action of duboisia causes considerable dilatation of the retinal veins. If this fact is verified, we will have one of the most valuable agents for treating affections of the bottom of the eye.—*Le Mouvement Médical.*

New Remedies.—The activity of the profession, and of manufacturing chemists, in bringing forward new articles to the materia medica and corresponding advances in therapeutics, is one of the marked characteristics of the present day.

These additions are offered in such rapid succession, that it is next to impossible to keep pace with the constant advances in this department of medicine. This multiplication of remedies has a good and an evil aspect, and a word of caution now and then is proper. There are two extremes which many members of the profession are prone to adopt. The one is to denounce every innovation upon the materia medica, everything which has not the sanction of long usage. The other extreme is to receive with full confidence anything brought forward, whether meritorious or not, and in utter disregard of the manner of its introduction to the profession. This disposition has induced some members of the profession to adopt and recommend quack nostrums and other totally unreliable agents. In view of these two extremes it is evident that safety in therapeutics only lies in the mean between the two.

It is as pernicious a habit to denounce a remedy (properly introduced to the profession) without sufficient trial, as it is to accept as trustworthy any and everything which comes along.

The age we live in is one of experiment, observation and progress, and it is the tendency of these potent influences to suggest and present much that is new and untried. This activity must of necessity result in many valuable additions to the materia medica, and in corresponding accessions to modern therapeutics.

The contributions to this branch of science during the past quarter of a century have been of a most valuable character.

Few physicians are so conservative as to deny the value of many of the new remedies and new preparations which, within a very few years past, have been found worthy of recognition by the great majority of medical practitioners. Who will deny that the various alkaloids of the cinchona bark, now in large measure employed as substitutes for quinia sulph., or that jaborandi, cascara sagrada, hydrate of chloral, nitrite of amyl, lactopeptine and the various malt extracts, etc., etc., are not worthy of professional confidence? Professional opinion has pronounced in their favor, and it would be as unreasonable to deny their therapeutic value as to question the value of quinia sulph. itself, or the salts of potash and soda, and other well tried and accepted agents.

Many worthless drugs and preparations have been, from time to time, brought to the notice of the profession. The wheat and chaff are offered together, and the lover of science must be content to sift the grains from the rubbish if he would arrive at accuracy in therapeutics.

It is the duty of the profession to deal honestly with new remedies, to give fair trial and close observation to their effects, to weigh well their therapeutic value, and to adopt or discard promptly such as come up to or fall below the standard of value claimed for them.—*Maryland Med. Jour.*

Hydrobromic Ether.—Allow me to lend what aid I can to establish the status of the new anæsthetic. Having seen the praise of Dr. Levis and Dr. Turnbull, I procured a pound of bromide of ethyl. Thinking, from the reports of these observers, that the new agent had acquired an established character, I did not first experiment upon animals, but gave it to a boy 4 years old. I pursued the method followed in giving chloroform, applying about a drachm to a small napkin with open meshes, reinforced by another napkin, as recommended by Dr. Levis. The lungs dilated largely with violent action of the heart and full pulse, followed by a pulse of less than the normal fullness. The pupils became moderately dilated, at the same time that a muscular twitching affected the face and the limbs. Without waiting for complete quiet the operation was made, which consisted in stretching the feet for talipes. The boy has taken chloroform every Monday morning for four weeks, and he has uniformly been able to eat his dinner, very rarely having any nausea. On this occasion he was excessively nauseated the whole day. As the proceeding is a very brief one, the duration of anæsthesia is made as brief as possible.

Half an hour later, Monday morning, April 5th, the same agent was administered to a healthy girl 15 years old. The same violent breathing and cardiac excitement, followed with subsequent flagging of the pulse and the same muscular twitching. The anæsthesia being yet imperfect, the bromide of ethyl was discontinued and ether substituted. The patient came quickly under its full influence, and the operation proceeded, which consisted of forcible extension of the knee. This patient had taken ether three times before with no unpleasant symptoms during its administration.

Two days later, the hydrobromic ether was given to a dog in the same manner in which ether is given—that is, by pouring it lavishly upon a napkin of coarse and stiff texture folded into the form of a funnel. The animal came fully under anæsthesia after a brief struggle, and after about ten minutes of sleep gradually woke up and ran away.

It is needless to say that my impression of the new anæsthetic is unfavorable.

Since this experience, the report, in the New York Medical Record, of a case of apparent bromine poisoning, has attracted my attention. In this case the anæsthesia was prolonged through an hour and forty minutes, and the patient lived

twenty-two hours. All the tissues and all the secretions and excretions gave the characteristic odor, after death.

It may be that I was too timid in the administration of the new agent, and that more experience will beget more boldness, but I shall wait awhile to hear from others.

The nausea which followed in the case of my little boy, in whose case the agent was given for the brief period necessary for a hard stretching of the feet, is contrary to what I was led to expect from the reports of the Philadelphia experimenters.—*D. Prince, M. D., in St. Louis Med. and Surg. Journal.*

Transfusion with Defibrinated Blood.—The interest awakened by the successful employment of defibrinated blood, *per rectum*, as a valuable auxiliary in the treatment of disease, leads me to call attention to the experiments of Prof. Ponfick,* which have not been recorded, to my knowledge, in any of our journals, and which seem to open a new sphere of usefulness for this agent. I allude to the intra-peritoneal injections of defibrinated blood, which Prof. Ponfick ranks as a simple and effective method of transfusion, devoid of the difficulties and dangers attending the ordinary procedure of transferring the blood directly from one person to another.

For some years back Prof. Ponfick, by way of experiment, had been injecting defibrinated blood into the peritoneal cavity of dogs, and noticed that the reaction following was hardly perceptible, while the absorption of the injected fluid was exceedingly rapid. Encouraged by these uniformly favorable results, he has lately employed this novel method of transfusion in three patients with perfect success, the only phenomena following the operation being a slight febrile movement and abdominal pain, both of very short duration. The quantity injected was 250 grammes in the first case, 350 in the second, and 220 in the third patient, and Prof. P. thinks that a larger quantity of blood can be introduced without any strain on the heart, lungs, or brain, owing to the gradual manner in which the absorption of the defibrinated blood is effected.

The apparatus employed is identical with that used by Prof. Thomas for intra-venous injection of milk, and the whole procedure consists in the introduction of the canula through the abdominal walls into the peritoneal cavity, and then allowing the required quantity of blood to flow in.

Should further experience with a larger number of cases be productive of the same happy results obtained by Ponfick, and the direct entrance of the injected blood into the circulation be established by ascertaining the quantity of red corpuscles in the patient's blood before and after the injection, this simple method of transfusion, requiring only ordinary skill for its performance, can be applied to many others than extreme and desperate cases, and defibrinated blood will fulfil an indication not second in importance to that of supplementary rectal alimentation, which, until now, it has so admirably served.—*A. B. De Luna, M. D., in N. Y. Medical Record.*

* Med.-Chir. Rundschau, and Rev. de Med. y Cirugia de Madrid, Dec., 1879.

Ilex Glabra. — Gall berry. Ink berry. — This plant was first called to the attention of the profession in Eastern North Carolina by Dr. J. B. Seavey. In his hands he found it to give excellent results in the treatment of malarial fevers. These experiments were made during the late war, at a time when quinine was not to be had in civil practice, and therefore they were carried out most scrupulously. A report of Dr. Seavey's results was made to the New Hanover County Association after the war, and the summary was, that a decoction of ilex glabra succeeded better than any of the indigenous remedies tried. Since that time there has been less need for substitutes for quinine, and the drug has again fallen into disuse.

A few months ago Messrs. Sharpe & Dohme, of Baltimore, prepared for us a fluid extract of ilex glabra, which we have used with the following results:

In acute tertian remittent we have given the fluid extract in teaspoonful doses every two hours until six doses were administered. At the end of that time, nausea and purging ensued.

On the second day, the day of the expected fever, the extract was given in the same doses and at the same intervals with the effect of nauseating and purging the patient. The paroxysm of ague was averted, but the purging was so persistent that quinine was resorted to until convalesence was established.

Subsequent experience gave the same results, and we suspect it will turn out on further trial that the purgative effects of the ilex glabra will be found superior to the anti-periodic effects. It seems from this knowledge of the drug at any rate, that these properties will forbid its use except in a limited number of cases in which a purgative is indicated. —*North Carolina Med. Journal.*

Manaca — Rhus Aromatica. — I have treated many cases of acute and chronic rheumatism during the past two months with fluid extract manacá and obtained the most astonishing results. My prescription has been:

℞. Fl. extract manacá..... ʒ ij.
Elixir simplicis, ad..... ʒ ij

M. Sig. A teaspoonful three or four times a day.

The effect of the remedy was headache (which was at once relieved by coffee), followed by continued perspiration and an amelioration of the symptoms. Manacá was the only remedy used. It is as much of a specific for rheumatism as quinine is for malarial poisoning. Will some of your readers try the remedy and give results?

I have also cured two cases of incontinence of urine, and three cases of diarrhœa, by means of fluid extract rhus aromatica. My prescription was:

℞. Fl. ext. rhus aromatic..... ʒ ijss.
Elixir simplicis, ad..... ʒ ij.

M. Sig. A teaspoonful three times daily.

One bottle sufficed to cure a case that had existed for many years, the patient having been compelled to wear a urinal day and night. Four doses effected a cure in two of the cases of diarrhœa, while it required two bottles for the third case,

which had existed for twelve years. No other treatment of any other kind was prescribed.—*J. H. Egan, M. D., in The Medical Brief.*

SODIUM BENZOATE.—A moribund new remedy, which took our German cousins by storm, as a remedy for consumption and diphtheria, seems to be at its last gasp. The diligent hospital doctors in Germany have found that no constant effect on hectic fever could be detected by its use; that the patients lost or gained in weight according to the degree of fever present, just as if they were under ordinary treatment; the local symptoms as revealed by auscultation remained unaltered or become worse; night sweats continued as before; the patients seemed to cough less for some hours after using the inhalation; not a single symptom of phthisis was improved by the inhalations; several complained of nausea and vomiting and two had bleeding from the lungs; lastly, an ulcer of the ventricular bands of the larynx, diarrhœa, strangury, vomiting, continual cough, conjunctivitiss, and breath loaded with benzoic acid befel one patient. This is what the Medical Times and Gazette says the Berlin doctors have found, and we pity the druggists who have caught the speculative mania too late. — *North Carolina Med. Journal.*

CARICA PAPAYA.—The physiological action of the carica papaya or papaw tree, has been made the subject of investigation by Dr. Moncorvo, of Rio Janeiro. The juice of the fruit obtained in small quantities by expression, was the portion experimented with; but, owing to the difficulty of collecting more than a very small quantity, and to the rapidity with which it undergoes fermentation, no satisfactory analysis of it has as yet been made. The most curious effect of this drug is exhibited in meat submitted to its action. Finely chopped meat, macerated in a ten per cent. watery solution for twenty-four hours, is entirely dissolved, and exhales a very strong and insupportable ammoniacal odor. If, instead of this lengthy maceration, boiling for five minutes be substituted, the disintegration is almost as complete, the meat being reduced to a pulpy consistency. Albumen, boiled for three minutes in a solution of papaya juice, is first coagulated by the heat, and then dissolved. On starch, apparently, no action is developed.—*Journal de Médecine de Bordeaux*, Dec. 6, 1879.

A NEW NARCOTIC.—Jamaica dogwood, piscidia erythrina is recommended in the London Pharmaceutical Journal as powerful narcotic, capable of producing sleep and relieving pain in an extraordinary manner. It has been used as an anodyne in toothache, curing the pain when introduced upon a dossil of cotton into the carious tooth. In Brazil it has an established reputation as a nervous sedative. Its action seems to be over the nerve-centres; it causes sleep without producing the cerebral hyperæmia which succeeds opium and morphia. The sleep is tranquil and refreshing; it soothes bronchial cough and moderates the paroxysm of asthma and nervous coughs. It has been used with success in chronic hepatitis and obstructions of the liver.—*The Druggist and Paint and Oil Review.*

ARAROBA; GOA POWDER.—According to Holmes (La Presse Médicale Belge.) the araroba comes from a plant of the family cæsalpinaceæ; according to Aguilar, on the other hand, the plant is a leguminous of the genus andira, having considerable analogy to andira inermis, which furnishes the bark formerly employed as a vermifuge. This not having yet been studied, Aguilar gives it the name andira araroba. The andira araroba is met with wild in the southern part of the province of Bahia. The araroba powder must be the product of oxidation of a resin existing in large quantities in the wood of the tree. Insects boring holes in the wood favor the entrance of air and the consequent oxidation of the resin.—*London (Eng.) Med. Press and Circular.*

MENTHOL.—Menthol is a crystallizable body deposited from Chinese oil of peppermint on exposure to cold. It has a definite chemical composition, being, in fact the camphor or stereoptene of peppermint oil. It is but slightly soluble in water, to which it imparts its characteristic smell and taste, but dissolves readily in alcohol, ether and oils, both fixed and volatile. It melts at about the temperature of the body, and when further heated volatilizes without decomposition. It possesses similar antiseptic properties to these of its homologue, thymol. Strong oil of peppermint painted over the part has long been a favorite mode of treatment in China for gout and neuralgia. The Japanese "Po-ho-yo," or neuralgia remedy, probably contains menthol.—*London Lancet.*

EUCALYPTUS GLOBULUS.—This drug is attracting attention as a reliable anti-catarrhal remedy. It is of great service in bronchitis with profuse expectoration; the expectoration speedily diminishing and the general condition of the patient improving under its use. The tincture in drachm doses, two or three times daily, may be prescribed; the writer, when suffering with severe irritation of the respiratory tract, caused by hay fever, obtained marked benefit from this remedy applied locally with a steam inhaler. J. B. M.—*Medical Herald.*

CAUTION.—Physicians prescribing chrysophanic acid—which is now coming so largely into use in the treatment of skin diseases, especially ringworm—should warn their patients against the accident of of introducing it into their eyes, through rubbing their eyes with their fingers, etc. Dilatation of the pupil ensues, accompanied with intense inflammatory itching and burning, causing much pain for the few days it lasts, though the inflammation soon subsides.—*Review of Med. and Pharmacy.*

BROMIDE OF POTASSIUM IN UTICARIA.—Bromide of Potassium in solution, one ounce to a pint of water, used externally, will almost invariably allay the the irritation of urticaria simplex. This has been the experience of Dr. E. C. Dudley, of Chicago, who has prescribed it frequently and seldom been disappointed in its results. It appears to act as a local sedative to the vaso-motor nerves of the skin.—*Chicago Medical Gazette.*

EUCALYPTUS.—In the Italian Medical Gazette, R.

Rudolph reports eucalyptus as a specific for acute coryza, and declares the twigs and swallowing the saliva secreted will result in rapid relief. His experience includes experiments upon his patients and upon himself. It is probable that the fluid extract would be equally efficacious.

Transactions of Societies.

Wayne County Medical Society.

STATED MEETING.

DETROIT, Nov. 20th, 1879.

Dr. Christian presented a portion of a placental cord in which was found a knot. The child was still-born, death probably being caused by this singular condition of the cord. A knotted cord is believed to be very unusual. This is the only case he has observed in 1,650 deliveries.

A cord of less than nineteen inches, whether this brevity be absolute or relative, from being coiled around some portion of the fœtus, will give traction on the placenta during parturition, and the less the available length the greater the danger.

Dr. Brodie.—The retraction of the head while in the upper strait, after each pain, is indicative of a short cord.

Dr. Christian presented a worm three inches in length, taken from the white of an egg after it had been boiled.

Dr. Gustin referred to a similar case which had come under his observation.

Dr. Leonard reported a case of herpes pectoralis on a pedestrian of temperate habits. It was on the right side, seventeen and a half inches long and three to four inches wide, following the course of the tenth and eleventh ribs. There was much pain, and was supposed to be caused by cold.

Dr. Brodie.—There is probably some irritation of the capillary functions. He also reported that on the 7th of Nov. he was called to see I. H. Smith No. 31 Chestnut street. Upon examination he found a case of strangulated hernia, direct inguinal, the intestine pushing down into the scrotum. The patient was taken ill on Sunday the 2d. A physician was called who prescribed medicine internally and the application of an ointment to the tumor. He evidently feared to make a correct diagnosis. The patient was vomiting fæcal matter, an ill-smelling watery fluid passed the rectum. He was much prostrated with a cold, clammy perspiration. Upon digital examination of the tumor a crackling sensation was given to the fingers, and Dr. Borrowman, who was with me, joined in the opinion that the gut was in the early stages of sphacelus. With his assistance and the usual procedure in such cases the hernia was reduced. The patient was put under the influence of opium. The second day there was still some vomiting of a yellowish liquid, but no action of the bowels and no pain. A prescription of an emulsion of ol. recini was ordered, of which a tablespoonful was directed to be taken every three hours. This was done, also an application of a fomentation of hot water to the bowels. The oil operated nicely, and on the third visit the patient felt quite well. Quiet rest was advised for a few days and directions for a truss were given. The interest of the case lies in the diagnosis, and shows how careful physicians and surgeons should be in the examination of tumors wherever found, and especially in the inguinal region. The latter when found almost always suggest the difficulty.

Dr. Leonard reported a case of peritonitis in a woman aged 38. She took cold at time of menstruation. The inflammation extended to the lungs. There was little pain in the lungs, but the pneumonia, which was probably metastatic, evidently caused death. She was sick one week—acutely three days—and was conscious to the last.

Dr. Gustin read a paper on infantile syphilis, in which he reported several interesting cases.

Dr. Gray.—In case the mother escapes the disease, can the child be affected? In answer to this question members expressed some doubt.

Dr. Richards.—When the infant is once cured of this disease recurrence is not so liable as in adults.

Dr. Book.—Saw a child with syphilis, the mother having escaped the disease.

Dr. Norton.—Dr. V. Mott did not believe this disease could be transmitted to the offspring.

Dr. Mulheron.—Has no fixed opinion on this subject. More testimony should be collected. Believes he has seen a diseased child whose mother was healthy.

Dr Brodie.—Observation leads him to the opinion that it does not necessarily follow that the mother should be implicated as a result of conception from a diseased father. Should this occur, abortion generally results during the early months of gestation. Treatment should therefore extend to both parents.

W. H. ROUSE, M. D., Secretary.

STATED MEETING.

DETROIT, Dec. 18th, 1879.

Dr. Book reported a case in which he had excised the hip joint of a boy with very favorable results. It was the patient presented to the Society by Dr. Lyster on Sept. 5th, 1878.

Dr. Lyster.—The patient was in a very fair condition for the operation, and should not be regarded as emaciated.

Dr. Brodie.—What was the condition of the capsular ligament?

Dr. Book.—It was attached by its lower half.

Dr. Brodie.—During the primary inflammation wire breeches might have been serviceable.

Dr. Lyster.—The limb was much swollen in consequence of delaying the operation. About ten years ago he had two cases of exsection of the hip. The patients are now attending the High School.

Dr. Gustin.—A free incision one year ago might have been beneficial.

Dr. Book.—Reported that measles are very prevalent. There is much swelling of the tonsils in some cases. In one case the eruption was nearly black, and death resulted on the following day. The house in which this woman lived was quite open and the surroundings unwholesome. Several child ren in the same house had measles of a milder type.

Dr. Clarke.—Saw a case of "black measles" in which the eruption seemed elevated from hæmorrhage. The patient rallied but afterwards died of bronchitis. Last June he saw a case of hydro-

thorax attended with great dyspnœa. The right side of the chest measured one and a half inches more than the left. One hundred and five ounces of fluid was removed by means of the aspirator; iodide and bromide of potash were given, and in two weeks the patient was able to be out. His health, so far as reported, has been good since.

Dr. Brodie.—This man, probably, called at the dispensary the other day. The lung is in pretty good condition, but there is some tendency to a return of the old trouble.

Dr. Lyster.—Measles are quite prevalent. In one case the rash disappeared on the third day and cerebral symptoms supervened. There was no albuminuria, and probably little or no effusion. Blisters were applied to the back and neck. Patient was better the next day.

Dr. Rouse.—Has seen a number of cases of measles and of sore throat. Also two cases of what was supposed to be membranous croup. One died, the other recovered.

Dr. Brodie.—While measles is the most prevalent disease, there seems to be a tendency to erysipelas. Three weeks ago a woman was wounded on the head and erysipelas followed. She got better, but a few days ago it reappeared on the face. One other case has been under treatment. Erysipelas may arise from cold or contagion.

Dr. Brodie.—A man had general puffiness of the body. His hip was injured about three years ago. The urine is very scant and the patient quite drowsy. Other members of the family have cough similar to that which attends measles. Ordered milk of magnesia and muriate of ammonia.

Dr. Lyster.—Cold weather favors the development of erysipelas. Measles may be developed by placing 1,200 men in a barrack and causing them to sleep on straw. Examples from the late war were given.

Dr. Brodie.—The cause of zymotic diseases has not been discovered. Measles, scarlatina, and possibly small-pox, may arise *de novo*. They are contagious when once developed. The first regiment had measles when there could be no exposure to that disease.

Dr. Norton.—In the winter of 1848–9 a man wounded his thumb. Cellular inflammation extended up the arm and death ensued. On the fifth day his nurse was taken with chills and nausea, followed by erysipelas and death. Similarly fourteen suffered, of whom three died. These cases show the disease to be contagious. In most of these cases the chills appeared on the fifth day. Abscess formed in only one case. The weather was cold.

Dr. Richards.—A man swallowed about three ounces of chloroform. Emetics followed by stimulants were given. His mouth and tongue were very much swollen, and for a time he could not swallow. Recovered.

W. H. Rouse, M. D., Secretary.

STATED MEETING.

Detroit, Jan. 15th, 1880.

Dr. Brodie presented a young lady who had inured her thumb slightly with a sewing machine about four weeks ago. Wormwood and vinegar were applied for a short time, and gave considerable relief. By the advice of a physician, carbolic acid—strength not stated—was obtained. The thumb was wrapped in cloth, which was secured by a string, and the acid poured on at the end. This gave considerable pain at first, but soon subsided and that part of the thumb inclosed by the cloth became dark-colored and is now in a state of dry gangrene. The line of demarkation is well defined. The patient is otherwise quite healthy.

Dr. Clarke saw a man who had applied equal parts of carbolic acid and oil to his great toe, which had been frozen. It is now sloughing, due probably to the acid applied.

Dr. Richards.—Carbolic acid is a very common application for frost-bite on the plains. It often causes sloughing.

Dr. Snow reported cases of measles and diphtheria observed at Dearborn.

Dr. Isaac Smith.—Saw a case of erysipelas following a gun-shot wound of the forearm. Though severe the limb will probably be saved. Measles have been very common, but there have been but few cases of fever. The marshes have not been particularly injurious to health.

Dr. Clarke.—Has seen a number of cases of goitre, one of which was uni-lateral, came on very rapidly, caused much dyspnœa and continued to enlarge for a time under treatment. No injury to the part could be traced as cause. Gave potas. iodide internally and ung. hydrar. biniodide locally, and the prospects of cure are now favorable.

Dr. Gustin.—It is not unusual for bronchials of rapid growth to continue to enlarge for a time under treatment.

Dr. Lundy.—When I was in New York it was the usual method to inject bronchocele, irrespective of kind, with iodine or ergot. The results were usually favorable, but should expect best in the cystic variety.

About eighteen months ago a man contracted syphilis, was treated by a would-be specialist and pronounced cured. This man gave the disease to his wife and both suffered from iritis. The wife is now blind in one eye and sympathetic ophthalmia affects the other. One foot from the toes to the instep and one finger are swollen, probably from periostitis. It is rather remarkable to have such severe symptoms developed in so short a time.

Dr. Mulheron.—Has seen a similar case except the woman had no husband. She was under good treatment from the first, but suffered from iritis and from periostitis of the tibia.

Dr. Brodie.—After suppurating buboes secondary symptoms may not appear.

Dr. Gustin.—Have seen a case with two buboes, followed by secondary symptoms.

Dr. Lundy.—About three years ago a man had syphilis but no bubo. He now had a suspicious chancre and sore throat, but no bubo.

Dr. Smith.—Necrosis often follows periostitis. It used to be supposed that secondary symptoms of syphilis might be obviated, but not now.

Dr. Brodie.—There have been a number of cases of bronchocele in children. Potas. iodide and potas. bromide internally and iodine locally usually produced favorable results.

W. H. Rouse, M. D., Secretary.